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UNIVERSITY OF CALIFORNIA

REPRINT FROM THE

Biennial Report of the President of
the University on behalf of the
Regents to His Excellency the
Governor of the State

1910-1912

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PRESIDENT'S OFFICE

UNIVERSITY OF CALIFORNIA

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SECRETARY OF THE REGENTS, 1910-11

UNIVERSITY OF CALIFORNIA,

BERKELEY, July 1, 1911.

*To the Honorable Board of Regents
of the University of California:*

GENTLEMEN: I have the honor of presenting the following Secretary's Report for the year ending June 30, 1911.

Respectfully submitted,

VICTOR H. HENDERSON,
Secretary of the Regents.

REGENTS OF THE UNIVERSITY, 1910-11

REGENTS EX OFFICIO

HIS EXCELLENCY HIRAM WARREN JOHNSON (since January 2, 1911)
 Executive Office, Sacramento
Governor, and President of the Regents ex officio

HIS EXCELLENCY JAMES NORRIS GILLETT (to January 2, 1911)
 502 Crocker Building, San Francisco
Governor, and President of the Regents ex officio

HON. ALBERT J. WALLACE (since January 2, 1911)
 621 Union Oil Building, Los Angeles
Lieutenant-Governor

HON. WARREN REYNOLDS PORTER (to January 2, 1911)
 First National Bank Building, San Francisco
Lieutenant-Governor

HON. ARTHUR H. HEWITT (since January 2, 1911) - - Yuba City
Speaker of the Assembly

HON. PHILIP A. STANTON (to January 2, 1911)
 202 Union Trust Building, Los Angeles
Speaker of the Assembly

HON. EDWARD HYATT - - - - - Sacramento
State Superintendent of Public Instruction

HON. A. LOWNDES SCOTT (since March 11, 1911)
 Seventh and Townsend Streets, San Francisco
President of the State Agricultural Society

HON. HENRY ALEXANDER JASTRO (to March 11, 1911)
 1704 Nineteenth Street, Bakersfield
President of the State Agricultural Society

RUDOLPH JULIUS TAUSSIG, ESQ., Main and Mission Streets, San Francisco
President of the Mechanics' Institute

BENJAMIN IDE WHEELER, Ph.D., LL.D. - - - - - Berkeley
President of the University

PRESIDENT'S BIENNIAL REPORT

APPOINTED REGENTS

The names are arranged in the order of original accession to the Board

	Term Expires
ISAIAS WILLIAM HELLMAN, Esq. - - - - - Wells, Fargo-Nevada National Bank, San Francisco	1918
CHESTER ROWELL, M.D. - - - - - Fresno Republican Building, Fresno	1926
CHARLES WILLIAM SLACK, Ph.B., LL.B. (to March 14, 1911) 504 Kohl Building, San Francisco	
JACOB BERT REINSTEIN, M.A. (died on April 16, 1911)	
JOHN ELIOT BUDD, A.B. - - - - - McDougald Building, Stockton	1916
MRS. PHOEBE APPERSON HEARST - - - - - Pleasanton, California	1914
ARTHUR WILLIAM FOSTER, Esq. - - - - - 1210 James Flood Building, San Francisco	1916
GARRET WILLIAM MCENERNEY, Esq. - - - - - 1277 James Flood Building, San Francisco	1920
GUY CHAFFEE EARL, A.B. - - - - - 233 Post Street, San Francisco	1918
JAMES WILFRED MCKINLEY, B.S. - - - - - 432 Pacific Electric Building, Los Angeles	1922
REV. PETER CHRISTOPHER YORKE, S.T.D. - - - - - 1267 Sixteenth Avenue, Oakland	1912
JOHN ALEXANDER BRITTON, Esq. - - - - - 445 Sutter Street, San Francisco	1914
FREDERICK WILLIAM DOHRMANN, Esq. - - - - - 201 Geary Street, San Francisco	1920
HON. THOMAS ROBERT BARD, resigned (to May 9, 1911) Hueneme, California	
FRANK SPAULDING JOHNSON, Esq. (died June 22, 1911)	
WILLIAM HENRY CROCKER, Ph.B. - - - - - Crocker National Bank, San Francisco	1924
TRUXTUN BEALE, LL.B. (since March 14, 1911) - - - - - Pacific Union Club, San Francisco	1926
PHILIP E. BOWLES, Ph.B. (since May 9, 1911) - - - - - 427 California Street, San Francisco	1922
CHARLES STETSON WHEELER, B.L. (since May 9, 1911) - - - - - Nevada Bank Building, San Francisco	1912

OFFICERS OF THE REGENTS

HIS EXCELLENCY HIRAM W. JOHNSON - Executive Office, Sacramento
President

VICTOR HENDRICKS HENDERSON, B.L.
209 California Hall, University of California, Berkeley
Secretary and Land Agent

ISAIAS WILLIAM HELLMAN, JR., Ph.B. Union Trust Company, San Francisco
Treasurer

FLETCHER A. CUTLER, ESQ. - 506 Crocker Building, San Francisco
Counsel

STANDING COMMITTEES OF THE REGENTS FOR 1910-11

NOTE.—The President of the Board and the President of the University are members of all committees.

Finance: Regents CROCKER, EARL, BRITTON, FOSTER, JOHNSON (to June 22, 1911), and HELLMAN.

Grounds and Buildings: Regents BRITTON, Mrs. HEARST, DOHRMANN, REINSTEIN (to April 16, 1911), WALLACE (since May 9, 1911), and TAUSSIG.

Agriculture: Regents JASTRO (chairman, to March 11, 1911), SCOTT (chairman, since March 11, 1911), FOSTER (vice-chairman), BUDD, EARL, BARD (to May 9, 1911), and ROWELL (since May 9, 1911).

Medical Instruction: Regents REINSTEIN (chairman, to April 16, 1911), CROCKER (chairman, since April 16, 1911), BRITTON (vice-chairman), HYATT (since May 9, 1911), DOHRMANN, and EARL.

Lick Observatory: SLACK (chairman, to March 14, 1911), CROCKER (vice-chairman to and chairman from March 14, 1911), MCENERNEY (vice-chairman, since March 14, 1911), BEALE (since March 14, 1911), and YORKE.

Wilmerding School: Regents TAUSSIG, EARL, SLACK (to March 14, 1911), and ROWELL (since March 14, 1911).

San Diego Marine Biological Laboratory: Regents MCENERNEY, BARD (vice-chairman, to May 9, 1911), PORTER (to January 2, 1911), WALLACE (since January 2, 1911), and JOHNSON (vice-chairman, from May 9, 1911, to June 22, 1911).

Executive Committee: This committee consists of the chairmen of all the other committees.

SPECIAL COMMITTEES OF THE BOARD

- To Nominate Standing Committees for 1911-12:* Regents BEALE, EARL, TAUSSIG, ROWELL, and WALLACE. (Appointed April 23, 1911.)
- To Prepare Resolutions in Memory of Regent Reinstein:* Regents McENERNEY, JOHNSON, FOSTER, and BRITTON. (Appointed April 23, 1911.)
- To Draft Resolutions in Appreciation of Judge Cutler's Services:* Regents EARL, FOSTER, and TAUSSIG. (Appointed June 13, 1911.)
- To Consider a Plan of Holding a Conference in the Greek Theatre, at the time of the Panama-Pacific Exposition, on the Problems of Consular, Diplomatic, and other International Relations, the conference to be participated in by representative diplomatists, and others, authorities in international law and international affairs:* President WHEELER, Regent BEALE and Regent EARL. (Appointed June 13, 1911.)
- To Consider the Request of the San Diego Marine Biological Laboratory for a State Appropriation:* Regent EARL and President WHEELER. (Appointed February 14, 1911.)
- To Consider Establishing a College of Jurisprudence at Berkeley and to arrange Admission Requirements therefor:* Regents BUDD, McENERNEY, MCKINLEY, REINSTEIN, BEALE, and EARL. (Appointed March 14, 1911.)

ORDERS OF THE BOARD.

Memorial Resolutions for Regent Reinstein:

On May 9, the following resolutions were adopted, by a rising vote, in memory of Regent J. B. Reinstein, whose death occurred on April 16, 1911:

IN MEMORIAM

“The Regents of the University of California record in the death of Jacob Bert Reinstein the passing of an able, energetic, far sighted, loyal, and high minded alumnus and Regent of the University and citizen of the State.

“To mention his services to the University would be to enumerate the things that have made the institution great. To whatever detail he lent his mind for the moment, it was all part of a comprehensive ideal toward which the University should be built. In this view, he was active as President of the Alumni Association in mobilizing and energizing that body in the service of their Alma Mater. In this view, he threw himself with such fervor into the athletic interests and other student activities that football seemed to be a passion of his. In this view, he organized the “Labor Day” project of the student body. In this view, he planned the devotion of a certain portion of the State appropriations for Scholarships, distributed among the Congressional Districts. In this same view, he suggested to Mr. Levi Strauss the institution of an equal number of scholarships supported by private generosity.

“The same motives and principles were at the bottom of his interest and activity in securing support from the State in varied legislation, especially the second one-cent tax. The same motives underlay his promotion of Farmers’ Institutes and the extension of the work of the College of Agriculture to the direct advancement of the interests of the State. The same motives, too, underlay his general support of the professional colleges, and, above all, his intelligent, patient and persistent devotion to the encouragement of medical education. It was with the same object that he became infatuated with the idea of providing a splendid architectural scheme for the appropriate housing of the University. If his most signal services are connected with the first presentation to the Regents of a comprehensive architectural plan, and then with the execution of the Phoebe A. Hearst Architectural Competition, they are, nevertheless, but parts of one large-

mind, far-sighted design for the development of the University to its utmost possibilities as representing the educational interests of the State.

“His attitude on all questions was statesmanlike. Every consideration was weighed by him in respect to its bearing on the interests of the Commonwealth. His two passions were the University of California and the City of San Francisco. But these to him were parts and agents and instrumentalities of the State. His ultimate thought always was, what would redound to the glory and honor of California.

“There was much that was grandiose in his view of things, that was dramatic in his action. Nothing was too magnificent or splendid for his conception. But behind his idealism, and the gorgeousness in which he loved to clothe his pictures, there was a practicality of means and methods of realization. He sketched his schemes in broad, comprehensive outlines and in alluring colors; he then filled in the details with utmost care and patience and toned down the color to suit the practical everyday purpose.

“In personal relations, he was the most loyal, affectionate, and dependable of friends. Whatever and whomever he loved, he loved utterly. Devoted himself to the public service, he demanded of whomever served the public in any capacity that he serve unselfishly and unsparingly. Keenly and painfully sensitive to criticism and misunderstanding, his comfort and encouragement came back to him from those who responded with like fervor to his ardent affection.

“(Signed) GARRET W. McENERNEY,
FRANK S. JOHNSON,
A. W. FOSTER,
GUY C. EARL.”

The Basis of Income Altered:

The basis of the main support of the University of California was altered by the Legislature of 1911 by the substitution for the mill tax of a recurring annual grant, increasing each year for four years by an added seven per cent.

The “State University Fund” had consisted of a tax of three-tenths of a mill (that is, a tax of three cents on each \$100 of assessed valuation.) The financial committees of the Legislature were of the opinion that the change in the tax system of the

State (whereby the sources of State and local taxes had been separated, and the income of the State derived primarily from taxes on the gross earnings of corporations, the general property tax being left to the counties and municipalities), would probably result in unprecedentedly rapid increase of the total assessments of California property. They decided, therefore, to repeal the "three-cent tax law," and the Legislature adopted a law, approved April 25, 1911, among the provisions of which were the following: (See California Statutes and Amendments to the Codes, 1911, page 1104)

To provide for the permanent support and improvement of the University of California, there is hereby created an annual fund, to be called "The State University Fund." Said fund for the sixty-third fiscal year shall be equal to but not more than seven per cent in excess of the amount received by the University under the provisions of chapter three hundred and twenty-nine of the statutes of nineteen hundred and nine [law providing for the 3-cent tax] for the fiscal year ending June thirtieth in the year one thousand nine hundred and eleven, and provided further that such fund for each of the sixty-fourth, sixty-fifth and sixty-sixth fiscal years shall be equal to but not more than seven per cent in excess of the amount received by the University under this act for the immediately preceding respective fiscal year.

The money derived from said fund must be applied only to the support and permanent improvement of the University; provided, however, that not less than one-fourth of the said "State University Fund" shall, until the close of the seventy-first fiscal year, be placed in a fund to be known and designated as the Permanent Building Fund and which said fund must be devoted solely to the purposes of buildings and providing permanent improvements for the University. The Board of Regents must include in its biennial report to the Governor the statement of the manner and for what purpose all of the moneys referred to and raised under this act were expended.

The State University Fund, therefore, will increase for four years, as shown in the following table:

University year ending June 30	Amount
1911	\$710,773.55 (yielded by old 3-cent tax)
1912	760,527.70 (yielded under new law)
1913	813,764.63 " " "
1914	870,728.15 " " "
1915	931,679.12 " " "

Organization of Various Departments in Groups:

It was reported to the Board on February 14 that the various departments of the University were being organized in groups after the following order to facilitate and increase the efficiency of University administration:

- I. Philosophy and Education.
- II. Jurisprudence.
- III. History, Political Science, Economics.
- IV. Music, Architecture, Drawing.
- V. Greek, Latin, Indic, Semitic, Oriental Languages and Literatures.
- VI. English, German, French, Italian, Spanish, Slavic, Celtic Languages and Literatures.
- VII. Mathematics, Physics, Astronomy.
- VIII. Chemistry, Geology, Mineralogy, Geography.
- IX. Botany, Zoology, Physiology, Palaeontology, Hygiene, Anthropology, Anatomy, Pathology.
- X. Physical Culture, Military Science and Tactics.
- XI. Engineering.
- XII. Agriculture.

Rules as to Automatic Increases in Salaries:

On May 9 it was approved by the Regents that it be of record that with the adoption of the budget for 1909-10, the Regents inaugurated a system of automatic increases in salaries, whereby an instructor's salary is increased automatically \$100 per year from \$1000 up to \$1500, and the salaries of assistant professors \$100 per year from \$1600 up to \$2000; and that the automatic increases do not apply to members of the faculty below the rank of instructor, nor above the rank of assistant professor, and that there is no automatic increase after instructors have arrived at a salary of \$1500, and after assistant professors have arrived at a salary of \$2000; further, that increases are not automatic in the case of members of the faculty who are on part time only, as, for instance, certain members of the Department of Architecture and Law, nor in the case of the Affiliated Colleges, the Department of Agriculture, the Wilmerding School, etc.; nor in the case of instructors and assistant professors for a year of absence on leave, the two-thirds salary while on leave being normally based on the salary of the previous year, unincreased; and, further, that in-

creases may, of course, be given in the cases cited above, in which no automatic increase is due as of right. Larger increases than of \$100 are of course sometimes made at the discretion of the President, with the approval of the Regents.

College of Jurisprudence:

On March 14 it was reported to the Regents by the President that the Academic Senate in session on March 8, 1911, unanimously adopted and ordered transmitted to the Regents of the University the following resolutions presented by the University Council, a committee of the Senate:

(a) That a College of Jurisprudence be erected at Berkeley.

(b) That the admission requirements of the College of Jurisprudence include Senior standing in any undergraduate college of this University, or the equivalent thereof.

It was voted to refer this matter to the attorney members of the Board.

Endorsement of Diplomas of Los Angeles Medical Department:

In response to the request of the alumni of the Los Angeles Medical School that they be accepted as alumni of the University of California, although their degrees were received before the existing Los Angeles Medical Department was a part of the University of California, it was voted on April 11 to authorize the President of the University and the Dean of the Los Angeles Medical Department to endorse upon the diplomas of recommended graduates of the medical college of the University of Southern California who received their degrees before the medical college of the University of Southern California was made a part of the University of California, a certificate of the fact that the medical college from which they received their degrees has subsequently become a part of the University of California as the Los Angeles Medical Department of the University of California; provided, that the faculty of the Los Angeles Medical Department shall recommend a list of persons whose diplomas should, in their opinion, receive such certification.

Income Reduced by Mortgage Tax Amendment:

The income of the University was reduced approximately \$25,000 per annum by the adoption of the constitutional amendment which provided that in all cases the land covered by a mortgage and not the mortgage itself should bear the taxes. Under the system previously existing the University could lend on mortgage at a rate which was a gross rate (including taxes) for the borrower, since the mortgage would exempt the land from taxation, and yet a net rate to the University, since the University mortgages were not taxed.

Proposed California Institute of Technology:

A bill was introduced before the Legislature of 1911 to provide for the creation and maintenance of the "California Institute of Technology," to be established in Southern California, and to receive tax support. The proposed institute would in most respects have been a duplication of the main portions of the University of California. Acting in pursuance of the advice of the chief educational experts of the United States, the Legislature rejected the bill.

On March 14 President Wheeler transmitted to the Board the following resolutions from the Academic Senate:

March 11, 1911.

To the Honorable Board of Regents of the University of California:

Whereas, the Academic Senate, consisting of all the faculties and instructors in the entire University, both in Berkeley and elsewhere, is authorized by section 18 of the Organic Act to memorialize the Board of Regents;

And whereas, Orders 166 and 167 of your honorable Board provide for communications to your Board from the Academic Senate,

The Academic Senate would respectfully call the attention of the Board of Regents to a bill now pending in the Legislature, looking to the establishment of a proposed California Institute of Technology, which institute is to conduct instruction of college grade in engineering, to confer academic degrees, and to have its own separate and independent governing board,

The Academic Senate views with grave apprehension such a departure from the practice hitherto existing in this state of placing all collegiate

instruction, conducted at the expense and in the name of the state, under any other board of control than the Regents of the University. The establishing of another board to supervise, in the name of the state, instruction in engineering will inevitably result in a double and variant standard of training for the engineering professions.

The Regents are at present supervising instruction and research in many parts of the state. The University is coterminous with the boundaries of the entire state, and unity of standard in university and collegiate instruction can alone be secured by the oversight of one governing board.

The spirit of the constitution, the history of higher education in this and other states lead us to believe that the present high standard of university instruction can be maintained only by continuing to place all university and college work for which the state is directly responsible, under one Board of Regents.

The Academic Senate, therefore, respectfully memorializes your honorable Board to take such action in this matter as may seem to it expedient.

Respectfully submitted,

(Signed) C. H. RIEBER,
Chairman pro tem.

It was voted to refer the matter of the proposed Institute of Technology in Southern California to the Alumni.

Amendments to Standing Orders of the Board:

Amendments to the Standing Orders of the Board were adopted by the Regents during the year as follows:

Order No. 122.—Upon written approval of the Finance Committee the President and Secretary of the Board shall execute proxies for the Regents for the voting of stock owned by the Regents. Adopted Sept. 13, 1910.

Amendment to Order No. 21: Upon written authorization by the Finance Committee of the Regents, the Treasurer of the Regents is authorized to endorse for sale stocks owned by the Regents of the University of California. Adopted Sept. 13, 1910.

Order No. 46, reading as follows: "The Committee on Grounds and Buildings is authorized and empowered to amend or enlarge any contract made by it by authority of the Board. All such amendments or enlargements shall be reported to the Board for confirmation at the next regular meeting of the board thereafter," was amended on August 9 by the addition of the

following words: "Provided that extra orders for less than \$500 in amount may be executed by the Secretary upon approval of a requisition for the work, approved by the President, Secretary, and Chairman of the Committee on Grounds and Buildings, without the necessity of further action by the Committee on Grounds and Buildings or the Board."

On October 11 the following additional rule was adopted: No. 124: "Upon written authorization by the Finance Committee, the President and Secretary shall execute in behalf of the Regents of the University of California bonds required in connection with University business."

On March 14 it was voted that standing order No. 162, reading as follows: "The signatures of the President of the Board, of the President of the University, and of the Secretary, and the seal of the Regents of the University of California shall be placed on all diplomas," be amended by the omission of the word "Secretary," and the insertion of the words: "The dean of the college from which the student graduates, or when such college is without dean, then of the Dean of the Faculties."

On April 11, order No. 36, providing for the standing committees of the Board, was amended by the addition of the following committee: "On Audit, consisting of three appointed members, none of whom, however, shall be members of the Finance Committee."

On April 11 it was voted to amend order No. 46 by the addition of the following section, to be known as Section 46a: "All bills incurred by any Department of the University shall, before payment, receive the approval of at least two members of the Committee on Audit, which approval shall be endorsed upon the original invoice for payment, or upon such position of voucher blank as may be approved of by said committee. Payments by the Secretary and by Heads of Departments out of revolving or contingent funds shall be continued as heretofore, but the reimbursement of such funds by checks drawn upon the Treasurer shall be approved in the manner heretofore stated for approval of invoices."

Recorder Authorized to Sign Documents in the Secretary's Absence:

On June 13 it was approved that the Recorder of the Faculties be authorized to sign documents requiring the signature of

the Secretary of the Board of Regents at such times as the Secretary may be absent from the University, this to be contingent each time upon the written approval of the President of the University and of the chairman of the Finance Committee for a specific period.

Adoption of New University Seal:

A new University Seal was adopted by the Regents on August 9. The new seal designed by Tiffany & Company of New York, is as follows:



Gymnasium and Infirmary Fee:

On April 11, on President Wheeler's recommendation, it was voted that the Infirmary and Gymnasium fee should hereafter be \$5, instead of \$4, of this \$3 to be credited to the Infirmary and \$2 to the Gymnasium fees.

Students' Observatory Fee:

On May 9, on President Wheeler's recommendation, it was voted to charge a fee of \$2.50 per half year to undergraduate students in the Students' Observatory.

Lot on Piedmont Avenue Site for Women's Dormitories:

On April 11 it was voted that the Palmer lot on Piedmont Avenue should be regarded as a site for future dormitories for the women students of the University.

Testing Laboratory in Civil Engineering Department:

It was voted on November 8 that a testing laboratory be made a part of the work of the Department of Civil Engineering, subject to the following provisions:

(a) That the work take the form of research, no tests of a merely routine nature, such as could be procured from existing business firms, being made.

(b) That the moneys received for tests go directly to the University for the support of the testing laboratory, laboratory assistants being paid for their services at definite rates per hour or month, and no salaried instructor receiving compensation for such work.

(c) That every precaution be taken to prevent the use of the University's name for advertising purposes.

Musical and Dramatic Committee:

On May 9 it was voted to provide a revolving fund of \$3000 for Professor William Dallam Armes as Chairman of the Musical and Dramatic Committee, and that all disbursements in connection with musical and dramatic events conducted by this committee of the faculty should be made through the regular mechanism of the University.

Cash Receipts of University Farm to be Deposited at Davis Bank:

On December 22 the following resolution was adopted:

“Resolved, that cash receipts at the University Farm at Davis shall be deposited with the Davis branch of the Bank of Yolo of Woodland to the account of the Regents of the University of California, such funds to be withdrawn by the Treasurer of the Regents at his discretion.”

Finance Committee Authorized to Make Collateral Loans in 1911:

On December 22 the Finance Committee was authorized to make loans on collateral security during the year 1911.

Regents to Meet at San Francisco Institute of Art:

On January 10 it was voted that the meetings of the Regents should thereafter be held at the San Francisco Institute of Art, instead of at the Crocker Building.

Accumulated Interest of Wilmerding School Added to Endowment:

On October 11 it was voted to add to the endowment of the Wilmerding School, as recommended by the Committee on Wilmerding School, \$15,000 of the \$23,666.59 of accumulated inter-

est on hand in the Wilmerding Endowment fund interest account on July 1, 1910, with the understanding, however, that the Wilmerding School Committee may hereafter withdraw portions of this \$15,000, if necessary, for use toward the completion and equipment of the new Wilmerding School building, now being constructed by the boys of the school.

Estate of Mr. M. Theo. Kearney:

On August 9 it was reported that final distribution had been granted to the Regents of the Estate of Mr. M. Theo. Kearney of Fresno, and that the entire inheritance received from Mr. Kearney had been entered in the books as of a net value of \$1,000,000. This bequest was of 5400 acres of land, three miles from Fresno, including 820 acres of vineyard, 200 acres of ornamental grounds, a commodious residence, fine equipment of packing houses, barns, stables, workmen's dormitories, and workmen's cottages, pumping plant, sanitary system, shops, etc.

Offer to Purchase Chicago Property Rejected:

On May 9 it was voted to reject the offer of Mr. C. C. Heisen to purchase the lot on Dearborn Street in Chicago, bequeathed to the University by Mrs. Jennie D. Thompson, since Mrs. Thompson's will enjoins and directs the Regents not to sell this land before the expiration of the existing ninety-nine year lease.

\$5000 from General Fund Placed in Mills Endowment:

On September 13 it was voted to take \$5000 from the General Fund and place it in the Mills Endowment, this representing the salary for the Mills professorship, vacant since June 30, 1909.

Dental Department Surplus Made into an Endowment:

It was voted on September 13 that \$4367.32, the Dental Department surplus for 1910, should be made an endowment for the Dental Department.

Contracts for Library and Boalt Hall Furnishings:

On January 10 the Committee on Grounds and Buildings was authorized to award contracts for the furnishings for the new

University Library and Boalt Hall, as a charge against the respective appropriations therefor from the Permanent Building Fund, and the President and Secretary of the Board were authorized to execute such contracts as might be approved by the Committee on Grounds and Buildings for this work.

Women's Senior Hall:

On June 13, the President and Secretary of the Board were authorized and directed to execute such contracts for Women's Senior Hall, in accordance with the plans drawn by Miss Julia Morgan, as may be approved by the Committee on Grounds and Buildings and the Finance Committee, and these committees were empowered to advance not to exceed \$1500 to the Associated Women Students, over and above the moneys, approximately \$3300, which the women students had already raised, subject to the understanding that such advances were to be made only upon proper guarantee being given by the Associated Women Students for the repayment of money so advanced.

Track in Strawberry Cañon:

On March 14 it was voted to grant permission to the Associated Students, revocable at will, to build, at their own expense, a track in Strawberry Cañon in the region between the Palmer House and the Dairy Barn, subject to approval by the Regents of the choice of the architect and of the preliminary and the final plans, and provided that the track cross the creek on bridges, and that the stream bed be not graded full but left as an open creek.

President's House Furnishings:

On January 10 it was voted to appropriate \$12,000 from the Permanent Building Fund for furnishings for the new President's House, and the Secretary was authorized to pay such bills in this connection as might be approved by the President of the University.

Electricity for President's House:

On January 10 it was voted that the President's House should be connected with the University electrical plant and current supplied at the expense of the University.

Street Work at Affiliated Colleges:

On March 14 it was voted to refuse to pay the bills presented by the Raisch Improvement Company for street work done by them adjoining the Affiliated College grounds, inasmuch as this work was done without preliminary consent of the Regents, and inasmuch as the Regents are not liable for street work affecting property owned by the Regents and used for educational purposes.

Alterations of Los Angeles Medical Department Buildings:

On June 13 power to act was granted to the Committee on Grounds and Buildings and to the Finance Committee, subject to approval of the Attorney of the Regents as to due accordance of action taken with the provisions of the Legislative act, to proceed with the alterations in the buildings of the Los Angeles Medical Department, the cost of such changes to be kept within the \$25,000 appropriation made by the Legislature.

LEASES

During the year leases were approved by the Board as follows:

Lessee	Property	Term	Total Amount
H. F. S. Hooper	House and contents situated on Lot "A," Block 7, Oceanside, San Diego County.	July 5, 1910, to July 5, 1911	\$150.00
S. B. Sumner	E. ½ of Sec. 6, T. 28 S., R. 18 E., M. D. M.	Nov. 1, 1910, to Nov. 1, 1911	20.00
Frank C. Sloan	214.48 acres in San Mateo County.	Sept. 15, 1910, to Sept. 15, 1915	6,230.00
R. F. Morrow	Lick Observatory lands in Secs. 8, 9, 16, and 17 in Township 7 South, Range 3 East, M. D. M.	Mar. 1, 1911, to Mar. 1, 1914	240.00
Frank Schmidt	Three lots on Seventh and Holyoke streets, West Berkeley.	Revocable at will	4.00 per annum
R. L. Guy	Palmer House on Piedmont avenue.	Aug. 1, 1911, to Aug. 1, 1912	600.00
Various tenants.	Parcels of alfalfa and pasture land of the Kearney Estate in Fresno County.		

CONTRACTS

During the year building work contracts were approved by the Board as follows:

Contract	Account to which chargeable	Contractor	Contract Price
Agriculture Hall:			
Steel erection,	Permanent Building Fund,	C. A. Blume Construction Co.,	\$2,950.00
Structural steel,	Permanent Building Fund,	Ralston Iron Works,	21,923.00
Granite work,	Permanent Building Fund,	California Granite Co.,	42,300.00
Excavation and concrete,	Permanent Building Fund,	Clinton Fireproofing Co.,	36,970.00
Plumbing,	Permanent Building Fund,	Wm. F. Snook & Son,	10,737.00
Carpentry and mill work,	Permanent Building Fund,	J. C. Nielson,	22,000.00
Furring, lathing and plastering,	Permanent Building Fund,	Wm. Makin,	18,354.00
Marble and terrazzo,	Permanent Building Fund,	Mission Marble Co.,	2,465.00
Heating and ventilating apparatus,	Permanent Building Fund,	Mangrum & Otter,	6,455.00
Roofing and sheet metal work,	Permanent Building Fund,	Guilfoy Cornice Co.,	13,765.00
First Street Building (for Blake, Moffitt, & Towne):			
Piling,	First Street Building,	Mercer-Fraser Co.,	2,521.00
Excavations, foundations, reinforced concrete, and carpentry,	First Street Building,	Standard Construction Co.,	51,636.00
Plastering,	First Street Building,	A. Knowles,	2,585.00
Marble and terrazzo,	First Street Building,	Vermont Marble Co.,	456.00
Glazing,	First Street Building,	W. P. Fuller & Co.,	1,300.00
Roofing and sheet metal work, fire-proof doors and windows,	First Street Building,	Fordeur Cornice Works,	4,300.00
Vault doors,	First Street Building,	Herring, Hall, Marvin Safe Co.,	400.00
Sidewalk lights,	First Street Building,	Berger Manufacturing Co.,	448.00
Ornamental iron work,	First Street Building,	California Artistic Metal and Wire Co.,	4,920.00
Painting,	First Street Building,	D. Zelinsky,	765.00
University Library:			
Painting and decorating,	Doe Bequest,	J. Llewellyn Co.,	8,500.00
Steel furnishings,	Permanent Building Fund,	Art Metal Construction Co.,	54,832.00
Card cabinets,	Permanent Building Fund,	A. J. Forbes & Son,	4,315.00
Table lamps, etc.,	Permanent Building Fund,	Adams & Holloper,	3,616.00
Istrian marble for loan desk,	Permanent Building Fund,	Mission Marble Works, (per cu. ft.)	5.25
Carving and setting in place the loan desk, three marble benches for the vestibule and stair landing, and four marble bases for the vestibule lamps,	Permanent Building Fund,	J. Schoenfeld,	2,582.00

Contract	Account to which	Contractor	Contract Price
Steel shelving for University Press room and five additional bookstacks, University Library and Boalt Hall: Tables and various cases and cabinets, Chairs, Lighting fixtures, Boalt Hall: Steel book stack, Five settles for the basement and five desks for the studies, Lighting fixtures, Linoleum floor covering, President's House: Roads and walks, Painting and decorating interior, Class of 1910 Bridge: Swimming pool in Strawberry Cañon:	Permanent Building Fund,	Van Dorn Iron Works,	3,125.00
	Permanent Building Fund,	A. J. Forbes & Son, Whitaker & Ray-Wiggin, Thomas Day Co.,	16,563.25 7,503.23 907.00
	Permanent Building Fund,	Art Metal Construction Co., Rucker-Fuller Desk Co.,	9,600.00 870.00
	Permanent Building Fund,	Adams & Hollopeter, D. N. & E. Walter,	4,800.00 1,596.70
	Permanent Building Fund,	Pringle, Dunn & Co., J. Llewellyn Co., H. F. Sorensen,	8,450.00 1,950.00 1,150.00
	Students' Gymnasium Fees,	San Francisco Fireproofing Co., (assigned to Contra Costa Construction Co.)	14,268.00
University Farm: Erection of silo, Wilmerding School: 18-inch iron stone pipe sewer on Rhode Island street, from Seventeenth to Mariposa, Sewer, in Broadway Terrace Tract: Grading, macadamizing, and cement sidewalks and curb for the portion of the main axis roadway north of the new University Library, and also from the Philosophy Building to the Hearst Memorial Mining Building, including granite and brick steps and terraces at the approach to the main entrance of the new University Library, Women's Senior Hall:	University Farm Buildings, Wilmerding School, Tompkins Fund, Permanent Building Fund, Funds donated by the Associated Women Students,	Lee M. Vance, Stanley J. Fay, Hutchinson Co., Contra Costa Construction Co., William Bruce,	1,512.50 1,662.50 33,100.00 3,499.00

Contracts for First Street Building:

On September 13 the President and Secretary of the Board were authorized and directed to execute such contracts as might be approved by the Finance Committee for the erection of a reinforced concrete building for Messrs. Blake, Moffitt, and Towne on the lot on First street, San Francisco, held by the Regents as an investment.

Exchange of Stock in San Francisco National Bank for Stock of Bank of California:

On August 9 the Treasurer was authorized to endorse for the Regents of the University of California, for transfer, their stock in the San Francisco National Bank. On October 11 it was reported to the Regents that two hundred shares of stock in the San Francisco National Bank had been exchanged for \$7500 and one hundred shares of stock of the Bank of California, par value \$10,000. This stock was entered in the books of the University at a valuation of \$20,550.00.

Contract for 1910 Raisins of Kearney Vineyard:

At the meeting of the Regents on September 13, 1910, the Regents ratified a contract with the J. K. Armsby Company, whereby the 1910 Muscat raisin crop of the Kearney Vineyard was sold to the J. K. Armsby Company at $3\frac{1}{2}c$ a pound, f.o.b. cars, Kearney Park, Fresno County. The J. K. Armsby Company refused to take the raisins, declaring that they were not "standard" within the meaning of the contract. The Regents had the raisins examined by some twenty different persons familiar with the raisin industry. All pronounced the raisins "standard" and as of good quality. Not wishing to engage in litigation over the matter, the Regents consented to an abrogation of the Armsby contract, after the J. K. Armsby Company had agreed to pay certain expenses which had arisen in connection with the dispute. The raisins were immediately thereafter sold to the Fresno Home Packing Company at $3\frac{1}{4}c$ per lb., f.o.b. cars, Kearney Park, a price which was approximately half a cent a pound above the price at the time prevailing. This excess above

the prevailing market price represented the purchasers' opinion of the superiority of the raisins grown and dried at the Kearney Vineyard to the general average of California raisins.

Permission to Judge Cutler to Visit Kearney Vineyard:

Upon request of Judge F. S. Cutler, retiring attorney of the Regents, on June 13 permission was granted him to visit at any time the Kearney Vineyard.

Contract for Military Uniforms for 1911-12:

On April 11 it was voted that the contract for military uniforms for the year ending June 30, 1912, be awarded to C. J. Heeseman, Inc., the lowest bidder, at a cost of \$18.95 for the complete uniform.

No Insurance to be Carried on Los Angeles Medical Department Properties:

On February 14 it was voted that no insurance should be carried on the properties of the Los Angeles Medical Department, since the University looks to the state to replace any University property destroyed by fire. This action was taken in pursuance of the precedent whereby on May 10, 1910, it was voted to discontinue insurance on the property of the Medical Department in San Francisco and Berkeley.

Buildings for University Farm:

On May 9 it was voted to apportion the State appropriation of \$65,000 for building operations at the University Farm as follows:

Dormitory	\$33,000	
Poultry Husbandry	7,000	
Hog barns	5,000	
Cottage for the farm foreman	3,000	
Reserve:		Approx.
Architects' fees	\$2,500	
Superintendence and advertising	1,500	
Corrals and other fencing	2,000	
Painting, repairs, and building emergencies	11,000	17,000
		<hr/>
		\$65,000

Architects for University Farm Building Operations:

On May 9 it was voted to employ Messrs. Cunningham & Politeo as architects for the new structures to be erected at the University Farm.

Hog Serum Laboratory:

The preparation of serums or vaccines to produce immunity in hogs against hog cholera was a task laid upon the University by the Legislature of 1911, by an act approved April 21, 1911 (California Statutes, 1911: p. 1064). A laboratory for this purpose was established by the University in Strawberry Cañon and the serum is now being widely distributed throughout the State, at the cost of production.

Hog Cholera Investigations:

It was voted on May 9 to proceed at once with the hog cholera investigations intrusted to the Regents by the Legislature at its last session, and that the necessary expenditures be made at once, even though the money would not be available to be drawn upon until June 28.

Insecticide Inspection:

Inspection of insecticides and fungicides manufactured or sold in California was entrusted to the University by the Legislature by an act approved May 1, 1911 (California Statutes 1911: p. 1248) just as already the University inspects commercial fertilizers. This work is done under the charge of the Department of Entomology. The cost is defrayed by a fee required of applicants for registration for insecticides.

Sale of Improvements at Petaluma Poultry Experiment Station:

On June 13 it was voted to sell the improvements at the former Petaluma Poultry Experiment Station, which are situated on land which has reverted to Mr. George P. McNear, to Mr. McNear at \$500.

Plans for Agricultural Investigations in Southern California:

The plan for agricultural investigations for the year ending June 30, 1912, as formally adopted by the Regents, is set forth

in the following letter of June 30, 1911, to President Wheeler from Professor E. J. Wickson, Director of the Experiment Station :

In accordance with the law establishing the Southern California Pathological Laboratory and Citrus Experiment Station of the University, I submit for your approval and for adoption by the Board of Regents, the following outline of work during the fiscal year 1911-12:

1. We shall proceed to secure the new and extended facilities for work generously made by the Legislature of 1911, to wit:

(a) Purchase of land and erection of buildings at the River-side Citrus Experiment Station, etc.	\$25,000
(b) Enlargement of Laboratory at Whittier.....	4,000
(c) Heating Furnace, Laboratory at Whittier.....	400
(d) Barn and Workshop, Laboratory at Whittier.....	1,000
(e) Laboratory Equipment at Whittier.....	2,000

These sums are in addition to the customary legislative appropriation for maintenance and will provide greatly needed opportunities for developing undertakings now in progress and for taking up some new lines.

2. As a branch of the work of the Southern California Pathological Laboratory and Citrus Experiment Station of the University, the Legislature of 1911 appropriated \$1500 for two years for the extension of research and experiment in the Imperial Valley. This was made on the basis of satisfactory service rendered under the appropriation of \$6,000 by the Legislature of 1909, of which the results have been published. This extended study of the peculiar agricultural conditions and problems of the Colorado River district will begin at once.

3. Work will be continued upon the "Brown Spot of the Orange" in an endeavor to obtain further knowledge in regard to the cause and means of control of this very obscure and troublesome disease.

4. Investigations will be carried on upon a considerable scale in connection with the various more obscure diseases causing the deterioration of lemons. Such troubles as the "Red Rot," "Black Spot," "Pitting," and other similar effects upon the rind of the fruit will receive attention. Also certain fungus decays which are not yet thoroughly understood, particularly those caused by the so-called "Cottony Fungus" of the form known as "Gray Rot."

5. Our investigations concerning the English Walnut, which have gone on for several years, will be continued, particularly along the line of developing and testing new varieties. In this work the object has been to obtain varieties more or less immune to the walnut blight and also having desirable commercial qualities.

6. Other plant disease investigations will take up the matter of vegetable diseases, particularly those affecting the tomato, sweet potato, and watermelon.

7. Study will be continued upon the "Crown Gall," one of the most serious diseases affecting fruit trees in this State. Such work will consist both in the study of the organism causing the trouble and its relation to various trees, and also work from the nurseryman's standpoint in connection with the possibility and feasibility of growing trees immune to these diseases.

8. In Entomology work will be continued along the line of special studies upon citrus tree insects.

9. In Pomology considerable work is under way in connection with improving fruit varieties by selection, particularly in the case of citrus fruits, and also in introducing and propagating desirable new fruits for Southern California.

10. Investigations are also being conducted upon the life history of our citrus fruits in connection with various questions affecting the development and nature of the fruit. It is proposed, during the coming year, to commence a special investigation of the relation of the citrus tree to soil conditions as affecting the health of the tree and the production of the fruit. This study will be carried on partly from the standpoint of the soil and partly from that of the tree. It will therefore involve the services on the one hand of the Soil Chemist, Physicist, and Bacteriologist and on the other hand that of the Plant Physiologist.

11. There will also be continued soil investigations already under way in regard to soil fertility and treatment. This concludes the list of specific objects of investigation, but in addition to these the Southern California Stations will continue as in the past to carry on a large amount of other work of a routine or general nature in the way of minor investigations, field studies, and examinations, and handling of correspondence.

Examiners for the Registration of Nurses:

On August 9 the existing members of the Board of Examiners for the registration of nurses were continued in service for a year from August 10, 1910. These members were as follows:

Dr. G. F. Reinhardt, Chairman.
Miss Theresa McCarthy, San Francisco.
Dr. Helen Criswell, San Francisco.
Dr. Henry G. Brainerd, Los Angeles.
Mrs. Charles D. Lockwood, Pasadena.
Miss Margaret Pepoon, San Diego.
Mrs. W. E. Downing, Vallejo.

DEGREES, SCHOLARSHIPS, AND MILITARY COMMISSIONS

Degrees.—For a complete list of the degrees conferred on May 17, 1911, see the University of California Register for 1910–11.

Scholarships.—For a list of the recipients of scholarships for 1910–11, see the University of California Register for 1909–10.

For a list of the scholarships for 1911–12, see the University of California Register for 1910–11.

Military Commissions.—For a list of the recipients of military commissions for 1910–11, see the University of California Register for 1910–11.

University Medal.—The University Medal for 1911, on recommendation of the Academic Council and by vote of the Regents, was conferred upon Walter Colton Little, Jr.

SECRETARY OF THE REGENTS, 1911-12

UNIVERSITY OF CALIFORNIA,

BERKELEY, July 1, 1912.

*To the Honorable Board of Regents
of the University of California:*

GENTLEMEN: I have the honor of presenting the following
Secretary's Report for the year ending June 30, 1912:

Respectfully submitted,

VICTOR H. HENDERSON,
Secretary of the Regents

REGENTS OF THE UNIVERSITY, 1911-12

APPOINTED REGENTS

The names are arranged in the order of original accession to the Board						Term Expires
ISAIAS WILLIAM HELLMAN, Esq.	-	-	-	-	-	1918
Wells, Fargo-Nevada National Bank, San Francisco						
DR. CHESTER ROWELL, M.D. (died May 23, 1912)						
Fresno Republican Building, Fresno						
JOHN ELIOT BUDD, A.B.	-	-	-	-	-	1916
McDougald Building, Stockton						
MRS. PHOEBE APPERSON HEARST	-	-	-	-	-	1914
Pleasanton, California						
ARTHUR WILLIAM FOSTER, Esq.	-	-	-	-	-	1916
1210 James Flood Building, San Francisco						
GARRET WILLIAM MCENERNEY, Esq.	-	-	-	-	-	1920
1277 James Flood Building, San Francisco						
GUY CHAFFEE EARL, A.B.	-	-	-	-	-	1918
233 Post Street, San Francisco						
JAMES WILFRED MCKINLEY, B.S.	-	-	-	-	-	1922
432 Pacific Electric Building, Los Angeles						
JOHN ALEXANDER BRITTON, Esq.	-	-	-	-	-	1914
445 Sutter Street, San Francisco						
FREDERICK WILLIAM DOHRMANN, Esq.	-	-	-	-	-	1920
201 Geary Street, San Francisco						
WILLIAM HENRY CROCKER, Ph.B.	-	-	-	-	-	1924
Crocker National Bank, San Francisco						
TRUXTUN BEALE, LL.B.	-	-	-	-	-	1926
Pacific Union Club, San Francisco						
PHILIP E. BOWLES, Ph.B. (since May 9, 1911)	-	-	-	-	-	1922
427 California Street, San Francisco						
CHARLES STETSON WHEELER, B.L.	-	-	-	-	-	1928
Nevada Bank Building, San Francisco						
JAMES K. MOFFITT, B.S. (since July 12, 1911)	-	-	-	-	-	1924
First National Bank, San Francisco						
REV. CHARLES A. RAMM, B.S., M.A., S.T.B. (since March, 1912)	-					1928
1100 Franklin Street, San Francisco						

OFFICERS OF THE REGENTS

HIS EXCELLENCY HIRAM WARREN JOHNSON - Executive Office, Sacramento
President

VICTOR HENDRICKS HENDERSON, B.L.
209 California Hall, University of California, Berkeley
Secretary and Land Agent

RALPH PALMER MERRITT, B.S.
220 California Hall, University of California, Berkeley
Comptroller

ISAIAS WILLIAM HELLMAN, Jr., Ph.B., Union Trust Company, San Francisco
Treasurer

WARREN OLNEY, Jr., A.B., LL.B.
1107 Merchants Exchange Building, San Francisco
Counsel

STANDING COMMITTEES OF THE REGENTS FOR 1911-12

Finance: Regents EARL, FOSTER, BRITTON, C. S. WHEELER (to September 12, 1911), MOFFITT (since September 12, 1911), TAUSSIG, and as Member Emeritus, Regent HELLMAN.

Grounds and Buildings: Regents BRITTON, Mrs. HEARST, DOHRMANN, BOWLES, WALLACE to September 12, 1911), and C. S. WHEELER (since September 12, 1911).

Audit: Regents DOHRMANN (chairman to August 8, 1911), SCOTT, and BOWLES; and, as alternate members (since October 4, 1911), Regents BEALE and C. S. WHEELER. This committee was dissolved on November 20, 1911.

Agriculture: Regents SCOTT, FOSTER, ROWELL (to May 23, 1911), HEWITT, and WALLACE (since September 12, 1911).

Medical Instruction: Regents BRITTON (chairman to September 12, 1911), MOFFITT (chairman since September 12, 1911), CROCKER, DOHRMANN, Mrs. HEARST, and ROWELL.

Lick Observatory: Regents BEALE, MCENERNEY, YORKE (to March, 1912), RAMM (since March, 1912), BUDD, and CROCKER.

Wilmerding School: Regents TAUSSIG, EARL, and CROCKER.

San Diego Marine Biological Laboratory: Regents MCKINLEY, WALLACE, and HYATT.

Executive Committee: This committee consists of the chairmen of all the other committees.

SPECIAL COMMITTEES OF THE BOARD

- To consider a scheme of holding a conference, in the Greek Theatre, at the time of the Panama-Pacific Exposition, on the problems of consular, diplomatic, and other international relations, the conference to be participated in by representative diplomatists, and others, authorities in international law and international affairs:* President WHEELER, Regents BEALE and EARL. (Appointed June 13, 1911.)
- To draft resolutions in honor of Judge Cutler's services:* Regents EARL, FOSTER and TAUSSIG. (Appointed August 8, 1911.)
- To draft memorial resolutions in honor of Regent Frank S. Johnson:* Regents MCKINLEY, BRITTON, and CROCKER. (Appointed August 8, 1911.)
- To confer with Mr. E. W. Scripps and Miss Ellen B. Scripps in regard to the relation of the San Diego Marine Biological Laboratory to the University:* President WHEELER and Regents EARL and MCKINLEY. (Appointed December 22, 1911.)
- To draft memorial resolutions in honor of Mrs. Jane K. Sather:* Regents EARL, MOFFITT, and ROWELL. (Appointed February 13, 1912.)
- To formulate an agreement with Professor John Galen Howard in regard to architectural relations with the University:* Regents BRITTON, EARL, and WHEELER. (Appointed March 14, 1912.)
- To nominate standing committees for 1912-13:* Regents EARL, MOFFITT, BEALE, TAUSSIG, and BRITTON. (Appointed March 14, 1912.)
- To draft memorial resolutions in honor of Regent Chester Rowell:* Regents BRITTON, EARL, and FOSTER. (Appointed June 3, 1912.)

ORDERS OF THE BOARD

Resolutions in Honor of Regent Frank S. Johnson:

On September 12 the following resolutions in honor of Regent Frank Spaulding Johnson were adopted by the Board:

WHEREAS: In the death of their colleague, Frank Spaulding Johnson, The Regents of the University of California have suffered the loss of a fellow-worker enthusiastic in his attitude toward the University, loyal and devoted in his endeavor for its advancement, and untiring in its service, now therefore, be it

Resolved, That The Regents of the University of California express their sorrow at this loss and their grateful recollection of a service to the University which was intelligent, earnest and warm-hearted.

Resolutions in Honor of Regent Chester Rowell:

On June 11 the following resolutions in honor of Regent Chester Rowell were adopted by the Board:

WHEREAS, in the death of Dr. Chester Rowell, the University of California has suffered an irreparable loss, now, therefore, be it

Resolved, That the Regents of the University of California hereby express their sorrow at the death of an honored and beloved friend and at the bereavement which has befallen the whole community. Wise in council, warm in heart, loyal to ideals that he strove to realize in the varied institutions of human society, active in all that makes for the common good, he was a fit exemplar to youth of a life well spent. He was a man whose rich and varied intellectual equipment and intellectual activity were always at the service of the community. In public life he was patriotic, courageous, and effective, leader of ideals and soundly constructive in accomplishment. In the practice of the healing art, his zeal for knowledge, his ripe wisdom of experience, and his skill of judgment and of use were lavished in a spirit of unselfish service. Unsparing of risk, weariness, and toil his labor were characterized by self-denying zeal and by the generous and kindly affection of a father. Full of years and honors, rich in the love of his neighbors and his associates, free to shape his day as he might choose, he sought not ease, but only new opportunity for understanding of human ways and human needs, and new opportunity for self-forgetful service to his fellow men.

Death of Professor George Davidson:

On December 22 President Wheeler reported to the Regents the death on December 1, 1911, at the age of eighty-six, of Dr. George Davidson, Professor of Geography, Emeritus, and a former Regent of the University.

Death of Frank Edward Johnson:

On February 13 President Wheeler reported the death in San Francisco on January 12 of Frank Edward Johnson, '08, Instructor in Soils.

Resolutions in Honor of Mrs. Jane K. Sather:

On March 6 the Regents adopted the following resolutions in honor of Mrs. Jane K. Sather:

WHEREAS, with the death of Mrs. Jane K. Sather her wise, large-minded, and far-seeing plans for benefactions to the University of California have now come to fruition, now, therefore, be it

Resolved, That the Regents of the University of California express their deep appreciation of the significance for scholarship and for art of Mrs. Sather's rich benefactions to the University. In the endowment of the Sather Chair in Classical Literature and of the Sather Chair in History, she has provided for all time to come for the support of two of the chairs of most fundamental importance to a university. In her endowment of book funds for the classics, for law, and for history, she has contributed most usefully toward the welfare of the University. In the erection of the Sather Gate as a memorial to her husband, Peder Sather, and in her provision for the building of the Sather Campanile, and for the hanging in its belfry of the Sather Bells, she has given invaluable aid toward the realization of the aim of the University to place before its students and before the American people works of public art which shall set standards of taste and give to the community the inspiration of excellence and beauty.

Resolutions in Appreciation of Judge Cutler's Services:

On August 8 the following resolutions in appreciation of Judge Cutler's services were adopted:

WHEREAS, F. A. Cutler, Esq., who for several years has been the Attorney for the Regents of the University of California, retired from his position at the end of the last fiscal year, June 30, 1911, now, therefore, be it

Resolved, by the Regents of the University of California, that they hereby express their appreciation of the painstaking, faithful, and efficient legal services rendered by F. A. Cutler, Esq., throughout the period of his attorneyship.

Resolutions in Honor of Dr. A. A. D'Ancona:

On February 13 the following resolutions in honor of Dr. A. A. D'Ancona were adopted:

WHEREAS, Doctor A. A. D'Ancona has offered his resignation as Dean of the College of Medicine of the University of California, now, therefore, be it

Resolved, That the Regents of the University of California hereby express their deep appreciation of the extraordinary patience, tact, and kindness which he has shown in his many years of service to the University; of his power of vision as to the future necessities and possibilities of the Medical Department; of his integrity and love of truth, and of the admirable quality of his service as executive official of the College of Medicine of the University of California.

Honorary Degrees:

On April 9 the recommendation of President Wheeler was adopted that at Commencement the honorary degree of LL.D. be conferred upon:

President Sidney Edward Mezes, '84, of the University of Texas;

President Edmund Clark Sanford, '83, of Clark College;

Professor George E. Hale, head of the Carnegie Solar Observatory on Mount Wilson;

Hon. Horace Davis, formerly President of the University of California.

Alumni President Not a Regent:

On February 13 it was reported to the Board that the appellate court had decided unconstitutional the law making the President of the Alumni Association of the University of California an ex-officio Regent.

Regulations as to Undergraduate Scholarships:

On April 9 the recommendations presented in the following letter from the Committee on Regulations of the Academic Senate to President Wheeler were adopted:

March 26, 1912.

To the President:

I am instructed by the Committee on Regulations to transmit to you the following report on the method of awarding undergraduate scholarships. In 1897 (Regents' Manual, p. 231) in accordance with an understanding with the State Legislature, the Regents established 28 scholarships to be distributed equally among the congressional districts of the state, the students to be selected solely by reason of their mental ability, character and needs, according to the method by which Phoebe Hearst scholarships are awarded. In the same year 28 Levi Strauss scholarships were also established, and by order of the Regents the same method of awarding these scholarships was adopted. Mr. Strauss' letter of gift also recites the distribution according to congressional districts (p. 232). The Regents are not bound by any statute in the matter, and whatever method of distribution is followed with the state scholarships is also evidently to be followed with the Strauss scholarships. The committee is of opinion that in 1897 one of the important principles in view was the desirability of bringing the advantages of the university to citizens resident in quarters of the state remote from the seat of the university, thus strengthening the influence of the university in the state at large, and emphasizing thereby the non-local character of the institution. The committee also recalls that in Gov. Gage's administration the recommendations of the Faculties were returned for revision on the ground that too great favoritism was shown to applicants from Alameda and San Francisco counties. The committee would express no opinion as to whether circumstances have changed since 1897; but if the Regents still desire to distribute the scholarships according to congressional districts the committee recommends:

(1) That of the 56 state of California and Levi Strauss scholarships, 55 be awarded to applicants from the eleven congressional districts, five to each district, provided worthy candidates appear, and one scholarship be awarded at large without regard to congressional districts. The committee would emphasize the word "worthy," and suggests that it be interpreted in such a way as to exclude candidates from any district whose intellectual and physical characteristics are below the standard that should safely be maintained for entrance into the University.

(2) The committee approves and recommends the adoption of the following proposal of the committee on scholarships: Where worthy applicants from any congressional district do not equal the number of scholarships, the vacancies may be filled from the applicants from other congressional districts in the order of their merit.

Respectfully submitted,

W. A. MERRILL,
Chairman of Committee on Regulations
of the Academic Senate

Vaccination:

At a meeting of the Board on August 8, the Attorney of the Regents reported that, in his opinion, it is unquestionably within the legal powers of the Regents to require vaccination for admission to the University. It was voted unanimously that the practice of requiring vaccination be continued.

On September 12 a delegation appeared before the Board from the California Anti-Compulsory Vaccination League. This delegation consisted of Messrs. A. J. Waterhouse, J. G. Wright, J. Stitt Wilson, Wilber Walker, Friend W. Richardson, Hugh Craig, John A. Wilson, Geo. Gelder, Dr. Woodson Allen, S. A. Hulin, Jacob M. Blake, P. R. Banning, F. C. Shank, and Samuel Taylor. The Board were addressed upon the subject by Messrs. Gelder, Waterhouse, and Wilson.

On November 14 it was voted that the President of the University be requested to give notice to the two students who had not been vaccinated that within a time to be fixed by him they should be vaccinated, and that if within that time they were not vaccinated they would be required to withdraw from the University.

On June 11 it was reported to the Board that Judge William H. Waste of the Superior Court of Alameda County had decided in favor of the Regents the suit brought by the anti-vaccinationists to prevent the requirement of vaccination as a prerequisite for admission.

The following resolution was then adopted by the Board :

Resolved, that no student be permitted to attend the University in its departments at Berkeley who does not show by evidence satisfactory to the University physician either that he or she has been successfully vaccinated within the seven years next preceding, or that within the one year next preceding he or she has attempted, with reasonable diligence, to be successfully vaccinated and such attempt has failed; provided, however, that in any case in which it shall appear to the satisfaction of the University physician that the student cannot be vaccinated without danger to his or her health, the requirement of vaccination shall be excused as long as such danger endures.

University to Participate in the International School of American Archaeology in Mexico:

On February 13 it was approved that the University of California should become one of the institutions participating in the International School of American Archaeology in Mexico, the University to be represented once in seven years by a member of its staff then taking the sabbatical year. The universities participating are Berlin, Harvard, Pennsylvania, and Columbia.

Music Courses:

On August 8 a letter of a committee of the music section of the Summer Session of 1911 was presented to the Board, expressing appreciation of the music courses of the Summer Session, and hopes for an extended course.

Award of Truxtun Beale Prizes:

On March 12 it was reported to the Board that the Committee of Award for the Truxtun Beale Prizes for essays on Tolstoy's "What Shall We Do?" had announced awards as follows: The first prize of \$600 to Bayard Hale Jones, '06, sometime LeConte Fellow at Harvard University, now a graduate student in the University of California; the second prize to Mr. Sheldon Cheney, '08.

Anthropological Museum:

On September 12 it was reported that beginning October 1, 1911, the Anthropological Museum in the Western Building of the Affiliated Colleges, on Parnassus Avenue, gathered by Mrs.

Hearst's generosity, would be open to the public daily, except Mondays, from ten to four. President Wheeler reported: "The collections are in chief part Peruvian, Egyptian, Californian, Greek, and Roman; the museum ranks in size and in quality of content with the three or four largest anthropological museums of the country. It is by far the largest west of Chicago, and compares favorably with the Smithsonian Institution in Washington. The actual cost of the collections has been nearly a million dollars, while their present value, owing to the uniqueness of many objects, is estimated to be from three to five times as great."

Academy of Pacific Coast History:

On September 12 it was voted that after September 1, 1911, the salaries and expenses of the Academy of Pacific Coast History be defrayed by the University from its General Fund, subject to such receipts as there might be from subscriptions already made, or from such gifts or subscriptions as might thereafter be made. All previous expenses of the Academy of Pacific Coast History had been met by gift from the Fellows and members of the Academy, etc. The work of the Academy of Pacific Coast History is the development and increase of the great collections in the Bancroft Library, and the preparation of historical matter for publication by the University.

State Rivers and Water Supply Commission of Australia Offers Employment to Irrigation Engineering Graduates:

On April 9 President Wheeler reported to the Board that the State Rivers and Water Supply Commission of Australia, with the approval of the Australian Government, has offered to three graduates of the engineering classes of the University of Melbourne, or any student qualified to enter that University, who will complete the course in irrigation engineering at either the State College of Colorado or the University of California, employment for a period of three years at a beginning salary of two hundred pounds per annum. Dr. Elwood Mead, formerly Professor of Irrigation Engineering in the University of Cali-

fornia, forwarded a copy of this action to the Dean of the Engineering School of the Melbourne University.

Amendments of Standing Orders of the Board:

On September 12 Standing Order No. 36 was amended by the addition of the following words: "A first and second alternate member of the Committee on Audit shall be nominated by the Board, for confirmation by the President of the Board; the first alternate shall serve in case of the absence or inability to act of two of the regular members of the Committee on Audit, and the second alternate in case of the absence or inability to act of the first alternate.

On November 20 the Standing Orders of the Board were amended by omitting therefrom Standing Order No. 115, and by the omission from Standing Order No. 90 of the words: "On Audit, consisting of three appointed members, none of whom, however, shall be members of the Finance Committee."

On January 9 the Standing Orders of the Board were amended as follows:

[The principal changes are that the Comptroller and the President, instead of the President and the Secretary, sign the requisitions which precede the expenditure of money; that the Comptroller and the Chairman of the Finance Committee, instead of the Secretary, the President, and the Chairman of the Finance Committee, sign advance vouchers; that the Comptroller signs the warrants drawn on the Treasurer and checks for the refund of laboratory deposits.]

1. The regular officers of the Board shall consist of a President, who is the Governor of the State, as provided by law, a Secretary, a Treasurer, a Comptroller, a Land Agent, and an Attorney. The office of Land Agent may be held also by the person who holds the office of Secretary or by the person who holds the office of Comptroller.

5. The Secretary, Treasurer, Comptroller, Land Agent, and Attorney shall be elected by the Board and shall hold office during the pleasure of the Board. The Secretary, Land Agent, Comptroller, and Treasurer shall give bonds for such amounts and in such form as the Board shall prescribe.

81. Paragraph 6. Amended to read: "Reports of the Secretary, Comptroller, Land Agent, and Treasurer."

382. Amended to read: "The Comptroller shall have charge of the financial affairs of the Dental Department."

158. Amended to read "shall deliver to the Comptroller, instead of "shall deliver to the Secretary."

The word Secretary changed to read "Comptroller" in Standing Orders Nos. 17, 23, 25, 30, 32, 34, 36, 115, 128, 154, 160, 171, 183, 187, 189, 273, 289, 295, 302, 308, 310, 325, 327, 329, 368, 372, 470, and 475.

The adoption of the following new rule, to be known as Standing Order No. 5A:

In the absence of the Comptroller or his inability to act, such person as shall in writing be designated by the President of the University and the Chairman of the Finance Committee shall be authorized to sign all documents requiring the signature of the Comptroller.

[NOTE.—The numbers refer to Standing Orders as set forth in the Supplement to the Regents' Manual dated July 1, 1911.]

160. The words "by the President and Secretary of the University and by the Chairman or Vice-Chairman of the Finance Committee" amended to read: "by the Chairman or Vice-Chairman of the Finance Committee, and by the Comptroller."

158. The insertion of the words "by the Comptroller" after the words "by the President of the University."

453. The addition of the following words: "When the Board of Regents grant a Sabbatical leave of absence on two-thirds salary, it shall be understood that the purpose for which this is done is to give the professor opportunity for study and recreation, in order that the value of his future services to the University may be enhanced. Such leave of absence is to be considered, therefore, as the beginning of a new period of service, and not as the ending of one, unless otherwise specifically provided by the Board."

187. Amended on April 9, to read; "No purchase of \$5 or less in amount shall be made without previous authorization from the Comptroller, except as otherwise provided in these rules."

Provision for Signatures in Absence of Chairman of Finance Committee:

On August 8 the action of the Finance Committee was approved in informing the Treasurer that in case of the absence of the chairman of the Finance Committee, the other members

of the committee were authorized to sign as acting chairman in the following order: Regents Foster, vice-chairman, and Regents Britton, C. S. Wheeler, and Taussig.

Automatic Compensation Provisions of Employers' Liability Act:

On September 12 it was voted that official notification should be given that the Regents have elected to bring their employees within the "automatic compensation provisions" of the recent "Employers' Liability Act" in so far as they legally can.

Sale of Duplicate Books:

On November 14 it was voted that the Librarian be permitted to sell at the proper price, at his discretion, such duplicate books as are found in the University Library and are not needed in the administration and use of the Library, the proceeds to be credited to the Library Exchange Fund.

Recording of Contracts and Acceptances:

On November 14 it was voted that, as advised by the Attorney of the Regents, contracts or acceptances be not recorded hereafter for the construction of a building devoted to educational work, but that they should be recorded for buildings on properties not used for educational purposes.

Fuel for President's House:

On November 14 it was voted that the University should pay for fuel for heating the President's House.

President's House to be Connected With Power Plant:

On November 14 the Committee on Grounds and Buildings was authorized to have the Department of Electric Light and Power of the University connect the President's House with the Central Heating and Power Plant, so that the President's House may be heated, as desired, either from the Power Plant, or from the heater already installed in the basement of the President's House; the cost, not to exceed \$2000, to be charged to the Permanent Building Fund (light and water being provided at the University's expense for the President's House).

Comptroller:

On November 14 the following resolution was adopted:

WHEREAS, in the opinion of the Regents of the University, the material interests and business affairs of the University are so rapidly increasing, and have already become so extensive and important as to necessitate the employment, by the Regents, of a business manager, to be called a comptroller, and for that reason, the Regents, at their regular meeting, held October 10, 1911, decided to employ such comptroller, and referred the matter to the Finance Committee and the President of the University to report a plan under which such employment should be made, and defining the duties of such comptroller; and

WHEREAS, the Finance Committee and the President have made report and recommendations in that regard; now, therefore be it

Resolved, That the said report and recommendations be, and they are hereby approved and adopted, and the Board hereby defines the duties of such comptroller to be as follows:

He shall, subject to the Board of Regents, have charge of the purchasing and sales department and of all the business affairs of the Regents, other than those, by the Organic Act, placed in the hands of the secretary, and such comptroller shall report to the Board of Regents in regard to the business administration of all endowment funds, investment properties, loans, the Kearney Farm matters, and like business and financial matters; but, in regard to the supplies for departments of the University and in regard to business matters directly concerned with any such department or arising therein, the comptroller shall report to the President of the University, who, as heretofore, shall himself report such matters to the Board of Regents. The comptroller shall have nothing to do with the academic and educational side of the University, as distinguished from its financial or business and material side, but the academic and educational side of the University shall continue to be, as heretofore, in the hands of the President of the University, and nothing herein contained shall be construed to confer on the comptroller any of the duties of the President.

Collateral Loans:

On December 22 authority was granted to the Finance Committee to make such loans upon collateral security as they might deem proper during the year 1912.

New Edition of Regents' Manual Authorized:

On February 13 the Finance Committee was authorized to have a new edition of the Regents' Manual issued.

Comptroller's Revolving Fund:

On February 13 the action of the Finance Committee was approved in establishing a revolving fund of \$10,000 for the Comptroller.

Schedule Bond for Employees:

On February 13 it was voted that all employees of the University who are under bond, except the Treasurer of the Regents, be bonded under a schedule bond, the name and respective amounts involved to be divided between two surety companies.

Dedication of the Library:

On December 22 it was reported to the Board that Dr. Herbert Putnam, Librarian of Congress, would be the speaker at Charter Day and at the formal dedication of the new University Library, built from Charles Franklin Doe's bequest. The exercises of the morning were held in the Greek Theatre, and the formal dedicatory exercises at the University Library.

Landscape Gardening:

On November 14 the Committee on Grounds and Buildings was requested to make report to the Board on the matter of entering upon a plan for landscape gardening on the campus at Berkeley. It was declared by the Board as its opinion that, now that a long step forward has been made toward the execution of the Phoebe A. Hearst Architectural Plan, through the erection of the Hearst Memorial Mining Building and the Greek Theatre, the new University Library, California Hall, the central heating and power plant, the Sather Gate, the President's House, Agriculture Hall, and various bridges, roads, paths, sewers, tunnels, heating and electrical work of permanent construction, etc., that the time had now arrived for the preparation and adoption of a permanent plan for landscape gardening on the University campus.

New Botanical Gardens:

On December 22 permission was granted to the Department of Botany to develop botanical gardens and experimental plantations in the region from the extension of Piedmont avenue eastward to the east line of the University property. It is the intention of the Department of Botany to use the land west of the Dairy Barn, north of the Cañon road, east of the extension of Piedmont avenue, and south of the eastward projection of the South Drive, as the chief place for botanical garden plots for the next few years.

Planting Plan for Campus:

On February 13 the Committee on Grounds and Buildings was authorized to have a planting plan prepared for the campus at a cost of not to exceed \$1000.

Plans for the Sather Campanile:

On June 11 it was voted that the Committee on Grounds and Buildings be authorized to have working drawings and specifications prepared by Professor John Galen Howard for the Sather Campanile, and to invite bids, subject to the understanding that the total cost of the Sather Campanile as a complete structure, including elevator, but not including finish floors nor interior trim, shall not exceed \$200,000, and subject to some other conditions.

Marble Chairs for the Greek Theatre:

On March 12 the Committee on Grounds and Buildings was authorized to obtain and place in the Greek Theatre two marble chairs, in memory of Professor Joseph LeConte and in memory of Frank Norris, '94, for which gifts of \$250 each had been made by Mr. William R. Davis and by college friends of Frank Norris.

On June 11 the Committee on Grounds and Buildings was authorized to have marble chairs for the Greek Theatre, for which gift moneys were available, installed in the Greek Theatre, in accordance with such design and designation of place as might be determined by the Supervising Architect, Professor John Galen Howard.

Inscription for the Sather Gate:

On November 14 an order was authorized to the California Artistic Metal and Wire Company, at \$112, for a bronze inscription, to be placed on the Sather Gate, to read, in accordance with Mrs. Sather's request: "In memory of Peder Sather"; this followed by the dates of his birth and death.

Swimming Pool for Women Students:

On September 12 construction was authorized of a swimming pool for the women students, on a vacant lot on College avenue north of Hearst Hall, given to the University by Mrs. Hearst some years ago. It was reported that Mrs. Hearst had offered \$2500 toward the cost of this pool. Construction, however, was deferred, later, on account of the project of moving Hearst Hall and establishing a new track on the site.

Appropriation for Oiling Roads:

On December 22 it was voted that an appropriation of \$500 be made from the General Fund for experimental work to be done under the direction of Professor Charles Gilman Hyde as to oiling roads on the campus.

Appropriation for Borings at Dam Site:

On December 22 the Committee on Grounds and Buildings was authorized, as a charge against the Permanent Building Fund, to have borings made to determine the fitness of the proposed dam site as a place for the construction of a dam. This site is in Strawberry Cañon, east of University Heights, lands having been purchased there by the Regents which furnish good opportunity for a future reservoir, with a planned capacity of seventy million gallons, for fire protection, irrigation, and general University uses.

Additions to Buildings and Alterations:

On June 11 it was voted to build a temporary addition east of the Chemistry Building and an addition north of South Hall, to house the shop of the Physics Department; also to alter the Anatomy Building to provide for the increased number of students; the total cost of this work being estimated at \$15,500.

Plans and Specifications for Addition to Architectural Building:

On May 14 the Committee on Grounds and Buildings was authorized to have plans and specifications prepared by Professor Howard for a \$7000 addition to the Architectural Building (to be built from the Permanent Building Fund).

Alteration of East Hall:

On May 14 the Committee on Grounds and Buildings was authorized to make East Hall available for the use of the Department of Zoology, the cost of the alterations to be charged to the Permanent Building Fund and of the equipment to a special appropriation from the General Fund.

Shutters to be Provided on Library Windows:

On May 14 the Committee on Grounds and Buildings was authorized to have Kinear metal shutters provided for the east windows of the Bancroft Library and the manuscript room in the new University Library, the cost to be charged against a special appropriation from the Permanent Building Fund.

Designs for Agricultural Hall Furnishings:

On September 12 it was voted that Professor John Galen Howard have charge of those elements of the furnishings of Agriculture Hall which involve design; as, for instance, book-cases, cupboards, laboratory desks, microscope benches, shelving, cabinets, etc., and that he be paid six per cent commission on the cost; and that this fee, as also the cost of the furnishings for Agriculture Hall, be charged against the Permanent Building Fund.

During the year building contracts were approved by the Board as follows:

Contract	Account to which chargeable	Contractor	Price
University Farm:			
Poultry house, brooder house, and foreman's cottage	State Appropriation for Farm Building Operations.	B. J. Duffy,	\$10,243.00
Dormitory.	Permanent Building Fund,	Baumann & Campbell,	31,946.50
Agriculture Hall:			
Wood furnishings, etc.,	Permanent Building Fund,	Brunswick-Balke-Collander Co.,	16,716.00
Metal furniture,	Permanent Building Fund,	Finch Jail Building Company,	21,160.00
Lighting fixtures,	Permanent Building Fund,	Fowler Mallett,	1,850.00
Chemistry Auditorium:	Permanent Building Fund,	F. A. Williams,	22,990.00
Tablet arm chairs,	Permanent Building Fund,	William Bateman,	4,480.00
Chico Forestry Station:			
Barn,	State Appropriation for Station	E. Wightman,	492.00
Los Angeles Medical Department:			
Alterations and additions,	State Appropriation for alterations and additions to Los Angeles Medical Department,	Kling Company,	5,177.00
New hospital unit,			
Riverside Citrus Experiment Station Laboratory:	State Appropriation for buildings and lands at Riverside,	Kling Company,	17,800.00
Sather Gate:		L. C. Waldman,	14,143.37
Completion of granite vases for,	Mrs. Sather's Donation,	Andrew T. Hunt,	3,500.00
Blake, Moffitt & Towne Building:			
Replacement of concrete frame with steel frame for sprinkler tank,	Sacramento Building Reconstruction,	Smith Rice Company,	1,885.00
Women's Senior Hall:	Donation of Associated Women Students,	William Bruce,	3,499.00
University Library:			
Velour hangings for the two great windows of the main reading room,	Permanent Building Fund,	D. N. & E. Walter,	730.00

Lots 44 and 59 in University Heights Purchased:

On February 13 it was voted that lots 44 and 59 in University Heights (the region northeast of the new swimming pool) should be purchased from Miss Ida Vandergaw and from the estate of her mother for \$400 each, as a charge against the appropriation from the Permanent Building Fund for the purchase of watershed lands in Strawberry Cañon.

Purchase of Lot 44 in University Heights Confirmed:

On March 12 it was reported that the Superior Court on March 4 had confirmed the sale to the Regents of the University of California of lot 44 in University Heights from the estate of Anna Vandergaw.

Purchase of Lot 55, University Heights:

On May 14 the purchase was approved of lot 55 in University Heights at \$525, as a charge against the appropriation from the Permanent Building Fund for the acquirement of watershed lands in Strawberry Cañon.

Increase in Water Rates of Peoples' Water Company:

On September 12 it was reported to the Board that an increase in the rates charged by the Peoples' Water Company, from 23 cents per thousand gallons for the first 30,000 gallons, and above that 20 cents per thousand gallons, to a new rate of 35 cents per thousand gallons, would make it necessary to increase the budget allotment for water for 1911-12 from \$5000 to \$8500.

Contract With the Union Oil Company:

On December 22 contract was authorized with the Union Oil Company for fuel oil for three years from December 1, 1911, at 75 cents, delivered at the University.

Alteration of Curb and Fence at Hearst Avenue and Oxford Street:

On September 12 permission was granted to the City of Berkeley to set back the curb and fence at the corner of Hearst avenue and Oxford street, on a curve of thirty foot radius, provided that the work be done without cost to the Regents, and in a manner satisfactory to the Regents, and provided that it be

understood that the permission to the City of Berkeley so to use a portion of the University lands is a revocable license only.

Reconstruction of Dormitory at Lick Observatory:

On March 12 it was voted that funds be advanced by the Regents for the removal of the old dormitory at the Lick Observatory, as made necessary by its damaged condition, and for its replacement with buildings of an equivalent capacity, and that the Legislature be asked, at its next session, to reimburse the University for the cost, inasmuch as the state carries its own insurance and inasmuch as it is the duty of the state to make good any impairment of the endowment of the University. The cost was estimated at \$50,000.

Professor Howard Architect for the Lick Observatory Buildings:

On April 9 it was approved that Professor John Galen Howard should do the architectural work for the dormitory and two cottages at the Lick Observatory, at six per cent, necessary travelling expenses to be paid by the Regents, and that if it was found necessary to have an inspector continuously on the work, the University should pay for the services of such an inspector.

Plans Approved for Lick Observatory Dormitory and Cottages:

On June 11 plans were approved for the proposed dormitory and cottages at the Lick Observatory.

Memorial of Faculty of Medical Department:

On December 22, the following report of the Committee on Medical Instruction was approved by the Board:

Your Committee on Medical Instruction has the honor of reporting that the faculty of the Medical Department of the University has presented to your committee, through President Wheeler, a memorial concerning the future of medical instruction in the University of California, which is, in part, as follows:

“The Faculty considers the announcement by the University of a definite policy toward medicine as most essential to the welfare of the department.

“1. Because the preparation of a scheme by the Carnegie Foundation to guide medical development on the Pacific Coast has been abandoned.

"2. Because amalgamation of the medical departments of Stanford and the University of California has proved impossible.

"3. Because the uncertainty in regard to the fate of the clinical years renders it impossible for members of the faculty to plan for suitable future expansion, tends to destroy interest and enthusiasm in work, and drives good students to other schools.

"4. Because it seems probable that funds may soon be available to further any rational, permanent, definitely announced plan of the University toward medicine."

The Faculty regards as the essential features of such policy:

"1. The bringing together in one place the various departments of the school. The divorce of the scientific and clinical years has, in the minds of the Faculty, been a serious mistake. That it is a fatal objection to the proper development of medicine is the opinion of experts most competent to judge.

"2. The placing of the clinical years on an academic basis. This may be attained in various ways. Heads of departments may be required to devote a definite portion of their time to teaching, or it may be advisable to call men whose entire time will be devoted to the needs of the school—in teaching, in research, or in the hospital.

"Sufficient funds must be available to pay clinical teachers and to provide assistants in clinical physiology and pathology, departments that will be indispensable in any scheme of hospital development.

"3. Even though funds may be provided for clinical teachers it will be impossible to get the right kind of men to accept positions unless material and a proper place to work be provided. This implies that the University own or control a hospital of (roughly speaking) 200 or 250 beds, and that adequate clinical laboratories be connected with the wards.

"4. The decision as to the type of medical school and as to the probability of the future promotion and encouragement of medicine by the University is all-important. Whether such a school can best be developed in San Francisco or in Berkeley is, in the opinion of the Faculty, a matter of secondary consideration.

"It is the firm belief of the Faculty that if a definite plan be adopted by the President and the Regents of the University, further funds can be immediately secured for the foundation of chairs or as permanent endowment for free beds in hospital."

Your Committee on Medical Instruction has the honor to recommend that it be declared the sense of the Board of Regents that the recommendations hereinabove quoted for the bringing together in one place of the various departments of the school, placing the clinical years on an academic basis, and providing a

proper teaching hospital and proper laboratories are for the best interests of the University as a whole and of the Medical School in particular, and that it is the purpose of the Regents to carry out these recommendations as rapidly as may be within the financial possibilities of the University.

We recommend, further, that it be declared the desire of the Board to establish a medical school of the highest standard, and that it is the desire of the Board to consolidate medical instruction and to place clinical instruction upon an academic basis.

On March 12 it was voted to refer the following letter, transmitted by President Wheeler, to the Committee on Medical Instruction:

SAN FRANCISCO, March 11, 1912.

PRESIDENT BENJAMIN IDE WHEELER,
University of California,
Berkeley, California.

Dear Mr. President:

The Committee of the Medical Faculty recently appointed by you begs leave to submit the following report:

In the opinion of this committee it is imperative that the plan for the development of the Medical Department already adopted by the Regents be put into operation at once. Uncertainty as to the immediate future of the last two years in medicine is determining many prospective students to look elsewhere for their work of next year, and inadequate hospital opportunities can no longer be expected to command the services of clinical teachers. Funds should, in some way, be obtained for the erection of a university hospital and for the reorganization of the departments of the last two years.

A hospital of 100 beds built upon the present site would, with the material available in the San Francisco Hospital, suffice for the present needs of the school. If it should be decided to develop the school in Berkeley a hospital of 150 beds would be required. Such hospitals would cost approximately \$300,000 and \$450,000. The cost of maintenance of hospital beds can be placed at two dollars a day, or \$73,000 yearly for a hospital of 100 beds; \$109,500 for one of 150 beds. From conservative estimates probably one-third of these amounts would be covered by fees charged patients, leaving \$50,000 or \$73,000 respectively to be provided. The cost of maintenance could still further be reduced by the erection of a private clinic to which members of the hospital staff could send patients. There is a fund at present available for the support of ten free beds, and there is no question that, with a modern Class A hospital more money can be obtained for these foundations.

The committee would further recommend that the work of the last two years be consolidated as soon as possible into three main departments: 1. A Department of Medicine; 2. A Department of Surgery; 3. A Department of Gynecology and Obstetrics. The Department of Medicine would include Pediatrics (children's diseases), Dermatology, and Neurology. The Department of Surgery would include Genito-Urinary diseases, Orthopedics, and diseases of the eye, ear, nose, and throat. The members of the faculty of the clinical years are heartily in accord with this scheme of reorganization and are ready at any time to hand in their resignations in order to admit of its speedy realization.

In accordance with the resolutions already adopted by the Regents, the committee would recommend the placing of these clinical departments on an academic basis as soon as possible. The chief of each department should, as soon as feasible, be paid a salary sufficient to enable him to devote the greater part of his time to teaching and to the development of his department. A budget sufficient to maintain clinical laboratories, to pay clinical assistants and to provide necessary instruments and apparatus should be assigned each department. It is estimated that \$8000 a year would be needed for medicine, \$8000 for surgery, and \$4000 for gynecology and obstetrics.

It is the opinion of the committee that a decision should be reached and announced at once whether the medical school is to be developed in San Francisco or in Berkeley, and whether the plan already adopted by the Regents can be inaugurated at an early date. For the next year, at least, clinical work must be carried on in the present institution, and provision should be made for an additional number of free beds, or for a fund sufficient to keep the hospital full of patients paying small weekly sums for their maintenance. The reorganization of the clinical faculty could be effected at once.

Respectfully submitted,

(Signed) WALLACE I. TERRY,
HERBERT C. MOFFITT,
FREDERICK P. GAY.

Medical Department to be Consolidated at San Francisco:

On April 9 it was voted that it shall be the policy of the Board to consolidate the Medical Department in San Francisco.

Medical School Faculty:

On April 9 the Regents approved the following recommendation presented by President Wheeler:

I recommend the adoption of the following plan for reorganization of the Medical Department of the University of California as submitted by the committee of the medical faculty on reorganization, Drs. Herbert C. Moffitt, Frederick P. Gay, and Wallace I. Terry:

Clinical instruction in the Medical School is to be carried on in the future under three main departments:

1. Gynecology and Obstetrics.

It is recommended that this department be put upon an academic basis at once and that a salary of \$4000 be given a professor and \$2000 to an assistant.

2. Medicine.

This department cannot as yet be put upon a full academic basis, but the head of the department, Dr. Herbert C. Moffitt, has agreed to devote half his time for the present. Dr. W. W. Kerr is to be Clinical Professor of Medicine, carrying on his present work at the San Francisco Hospital. Twenty-three hundred dollars will be devoted to paying three assistants. The Department of Medicine will include:

(a) *Pediatrics*, which will be under the direction of Dr. W. B. Lewitt as Clinical Professor of Pediatrics.

(b) *Neurology*.

(c) *Dermatology*, under the charge of Dr. Howard Morrow as Clinical Professor of Dermatology.

3. Surgery.

Dr. Wallace I. Terry as head of this department has agreed to give half his time at present for academic purposes. Eighteen hundred dollars will be devoted to paying three assistants. Under Surgery will be included:

(a) *Orthopedics*, which will be in charge of Dr. Harry M. Sherman as Clinical Professor of Orthopedic Surgery.

(b) *Genito-Urinary Surgery*.

(c) *Specialties: Laryngology, Otology, Rhinology, and Ophthalmology.*

In addition to the main departments the work of the Hospital Pathologist is to be reorganized. As Director of Animal Experimentation an additional man at \$700 is to be added to the \$1700 now available. The development of a hospital X-ray department is absolutely essential, and \$1200 is put aside for this purpose.

Clinical professors are subject to annual appointment.

Dr. Thomas W. Huntington, Dr. D. W. Montgomery, and Dr. C. A. von Hoffman are appointed emeritus professors in their respective branches.

The work of the Dean will at present include superintendence of the University Hospital, but as soon as funds can be raised for a suitable hospital it will be necessary to secure the services of a properly trained hospital superintendent. For the coming year the Dean of the Medical School is to be Dr. Herbert C. Moffitt.

SUMMARIZED CLINICAL INSTRUCTIONAL BUDGET

Professor of Obstetrics and Gynecology	\$4,000.00
Assistant in Obstetrics and Gynecology	2,000.00
Assistants in Medicine	2,300.00
Assistants in Surgery	1,800.00
Additional salary of Hospital Pathologist	700.00
X-ray department	1,200.00
Salary of Dean (already provided)	2,400.00
	<hr/>
	\$14,400.00
Deduct \$2,400.00	2,400.00
	<hr/>
Total	\$12,000.00

I lay before the Regents the resignations of the following members of the faculty in the Medical School, submitted in accordance with the report of the special committee on reorganization, and to take effect at the pleasure of the Board:

- Dr. A. J. Lartigau, as Assistant Professor of Gynecology.
- Dr. Herbert C. Moffitt, as Professor of the Principles and Practice of Medicine.
- Dr. Harry M. Sherman, as Professor of the Principles and Practice of Surgery.
- Dr. Harold Brunn, as Instructor in Surgery.
- Dr. Howard Morrow, as Assistant Professor of Diseases of the Skin.
- Dr. John C. Spencer, as Assistant Professor of Genito-Urinary Surgery.
- Dr. George E. Ebright, as Instructor in Medicine.
- Dr. Charles A. von Hoffman, as Professor of Gynecology.
- Dr. Thomas W. Huntington, as Professor of Clinical Surgery.
- Dr. W. B. Lewitt, as Professor of Pediatrics.
- Dr. W. W. Kerr, as Professor of Clinical Medicine.
- Dr. Wallace I. Terry, as Assistant Professor of Surgery.
- Dr. D. W. Montgomery, as Professor of Diseases of the Skin.

Oil-Burning Plant for University Hospital:

On November 14 it was voted that \$2000 be appropriated from the General Fund for the installation by the Department of Electric Light and Power of the University of an oil-burning plant for the heating system of the University Hospital at the Affiliated Colleges. It was estimated that the cost of this installation would be more than saved by the reduction in the fuel bill consequent upon a change from coal to oil.

Alterations in University Hospital and Veterinary Building:

On June 11 the Committee on Medical Instruction was authorized to have alterations made in the University Hospital Building and in the Veterinary Building at the Affiliated Colleges to fit these buildings better for the work of the University Hospital and Medical Department, at an estimated cost of \$12,000, to be charged against the Permanent Building Fund.

Standards of Admission to the Dental Department:

On December 22 it was voted to refer to the Academic Senate the following letter to President Wheeler from Dr. James G. Sharp, Dean of the Dental Department:

May I remind you that beginning with August, 1913, the Junior Certificate will be required for admission to the College of Dentistry, in accordance with a resolution submitted to the Board of Regents by the Academic Senate, and adopted December 14, 1910.

Realizing that the revenues of the University have been seriously impaired by recent legislative acts and believing that raising the standard of admission will tend to decrease the enrollment and thereby lessen the revenue of the department, I would respectfully urge that full consideration be given the question as to whether the Regents are willing to carry the Dental Department through a period involving small classes and proportionately small revenue for a few years, or of deferring the time of raising standards until a more favorable financial period.

The announcement of this department is issued in March, and I feel that a change of policy, if any be made, should be published in the announcement. Professor Lange, as Chairman of the Committee on Reorganization of the Dental Curriculum, has been consulted in this matter and we came to the conclusion that it should be referred to you and the Board of Regents to decide.

My personal recommendation and that of the Dental Faculty is that the raising of the requirement of admission to the Dental School should be deferred indefinitely.

Finances of Los Angeles Medical Department:

On August 8 Regent McKinley reported that the Los Angeles Medical Department could not carry on its work on the basis of its own receipts. It was voted to refer the matter to the Finance Committee and the Committee on Medical Instruction, with power to take such action as might temporarily be needed.

Los Angeles Medical Department Authorized to Expend \$10,000:

On September 12 it was voted that the Los Angeles Medical Department be authorized during the current fiscal year to expend not to exceed \$10,000, such of this amount as is not provided for by the receipts of the Los Angeles Medical Department to be regarded as an appropriation from the General Fund; provided, however, that it is the sense of the Board of Regents that this is merely a provisional arrangement, and that at the next regular session of the Legislature, the Legislature itself should say whether or not the State of California wishes to provide for medical instruction in the University of California; and, if so, whether the state will grant special moneys for medical instruction.

Architect for Los Angeles Medical Department Alterations:

On September 12 Mr. A. B. Benton was appointed architect for the alterations of the Los Angeles Medical Department buildings, at a fee of five per cent, these alterations not to exceed in cost the state appropriation of \$25,000.

Remodeling of Old Buildings of Los Angeles Medical Department:

On March 12 permission was granted to the Hospital Committee of the Los Angeles Department of the College of Medicine to expend from their budget allowance of \$10,000 such sums as are necessary for the remodeling of the old buildings of the department to make them conform to the new plans, and the committee was authorized to have this work done by day labor in place of by bids; this work being subject to the supervision of the Comptroller.

Gold Medal Awarded to Los Angeles Medical Department:

On October 10 it was reported to the Board that a gold medal had been awarded by the American Medical Association at its sixty-second annual session to the Los Angeles Medical Department of the University of California for the best exhibit in gross pathology, as prepared under the supervision of Dr. Stanley P. Black. It was voted that the medal be transmitted by the Regents to Dr. Black with an expression of appreciation for the work which he had done.

Outline of Work for Southern California Pathological Laboratory and Citrus Experiment Station:

On June 11 the following outline of work for the Southern California Pathological Laboratory and Citrus Experiment Station for the year 1912-13, submitted by Professor E. J. Wickson, Dean of the College of Agriculture, was adopted:

1. The enlargement of the plant disease laboratory at Whittier, the installation of a heating furnace therein, the construction of a small building supplementary thereto and additions to equipment thereof, all having been completed as provided for by the last legislature, we are now in possession of increased and improved facilities for research and experiments in diseases affecting economic plants in southern California and much new work in that line will be undertaken. In addition to better provision for the activities of our own experts, we shall supply office and laboratory facilities to Professor H. S. Fawcett, plant pathologist of the State Commission of Horticulture, who will investigate certain diseases of citrus fruit trees with the advantage of experience in the same line of work in Florida.

2. Professor W. T. Horne, who has been studying the causes of root-rot of fruit trees in central and northern parts of the state, will devote attention also during the coming year to similar phenomena in southern California.

3. Work will be continued with the walnut blight, both to demonstrate immunity of varieties and to determine the practicability of direct attack upon the blight by spraying with fungicides by means of new arrangements for the treatment of very large trees devised in the warfare upon the gipsy moth upon shade and forest trees in New England. Mr. Thomas F. Hunt will give personal attention to this problem which is of great importance in all the walnut growing regions of the state. A monograph on the walnut in California by Professor R. E. Smith and his associates will be published early in the year.

4. Mr. S. S. Rogers will continue his work for the protection of commercial vegetables and will give his whole time thereto, particularly to disease problems which have arisen in the growing of the tomato, water-melon, onion and sweet potato.

5. The nature and possible control of various blemishes, spots, etc., which affect the value and keeping quality of lemons will be studied by Mr. A. R. Tylor in the laboratory and packing houses. In the same line will be the experiments of Mr. E. E. Thomas in the disinfection of the lemon-washer against the spread of various other forms of decay as well as the brown rot, for which a successful treatment was demonstrated at the Whittier laboratory.

6. Mr. C. O. Smith will continue his work with the crown-gall of fruit trees, particularly in the testing of various available roots with reference to their susceptibility to this trouble. Mr. Smith has isolated the specific organism causing this disease and has demonstrated its character by artificial inoculation.

7. Increased attention will be given at Whittier during the year to the investigation of soil-effects upon the health of fruit trees and other plants. It will not be a study from the point of view of the soil specialist nor have to do with the general characters of soils, but with their possible agencies in causing diseases of plants. Facilities for this work have been provided and will be pursued by Mr. E. E. Thomas.

8. An elaborate series of experiments, with specially arranged apparatus, to determine several important biological questions in connection with characters of citrus fruits which affect their commercial value, will be undertaken by Mr. H. D. Young. Mr. Young also will make a study of soil moisture in its relation to certain plant diseases to determine how far these troubles may be attributable to abnormal soil-moisture conditions and therefore subject to control by regulation of irrigation, either in amount or method of application, etc. All these experiments will be made with specially constructed growing tanks of adequate size and with arrangements for absolute control of moisture, drainage, aeration, etc., and with facilities for observation of roots in place. It is expected that this work will be carried on under better regulating and observing conditions than ever before.

9. Entomological work at Whittier will be continued by Professor H. J. Quayle and Mr. J. D. Neuls. The study of citrus insects which has resulted in the publication of several important bulletins by Professor Quayle during the current year, will turn now to the citrus spider and particular attention will also be given to the walnut aphid and various other pests of much economic importance. Mr. P. H. Timberlake of the U. S. Department of Agriculture will continue his investigation of insects parasitic upon injurious species, especially those affecting citrus trees.

10. The coming year will see a somewhat radical change in the work of the Whittier Laboratory on account of the building of a comparatively large and complete laboratory at the Riverside Station, which when completed will become a headquarters for part of the work which has hitherto been handled at Whittier. It is the idea that after the completion of the Riverside Laboratory the work of that Station will become largely independent of that at Whittier, being developed on a broad basis along any or all lines which may seem desirable for the promotion of the citrus industry, while the work at Whittier will be more closely limited to Plant Pathology proper, including Entomology. At the Riverside Station a coöperative arrangement has been entered into with the United States Department of Agriculture whereby the latter agency will station expert investigators more or less permanently at Riverside, to carry on investigations looking toward the solution of some of the more serious problems of the citrus industry. This work, as outlined at present, will consider more particularly problems connected with the condition and proper treatment of the soil. Professor J. Eliot Coit will assume charge of the Riverside Station, transferring his residence to that place. Personally, he will carry on citrus investigations along pomological lines and likewise coöperate with the federal investigators as fully as possible.

11. As attached, in the original law for its establishment by the legislature of 1909, to the Southern California Laboratory and Branch Agricultural Experiment Station at Riverside, the Imperial Valley substation is included in this enumeration. In accordance with the act of the legislature of 1911, a very desirable tract of twenty acres of land at Meloland was donated with an obligation to provide twenty acres additional within two years. An outfit of inexpensive buildings suitable for station uses has been erected. Fencing, team, tools and supplies were also provided, the land planted to field crops and fruits and the Station formally opened on May 25, 1912. The station is in charge of Mr. W. E. Packard, who has been the University representative in Imperial Valley since the beginning of the investigation provided for by the legislature of 1909. During the coming year various plantings will be made and observation recorded relating to the adaptation of various plants and methods of culture to the conditions locally prevailing. The station will also serve as headquarters for the investigation of soils, live stock, injurious insects, etc., which will be undertaken by University experts so far as funds provide for their work. The station commands the active interest and support of those who are interested in the development of the Valley and of similar areas adjacent thereto.

Purchase of Block 9, Rubidoux Heights, Riverside:

On September 12 it was voted that \$2500 be paid to the Riverside Title and Trust Company in consideration for which that company should deliver to the Regents a deed from the Huntington Park Association to the Regents for Block 9 of the Rubidoux Heights, Riverside. By a lease made June 30, 1906, this land was leased to the Regents by the Huntington Park Association for twenty years at a rental of \$150 per annum. The Regents in 1907 paid \$4000 for the buildings on this land, including two five-room cottages, a stable, a horse-shed, and all out-buildings, water-pipes, trees, and other improvements. When the lease was made, a deed for Block 9 was placed in escrow, to be delivered, provided that the Regents paid \$2500 to the title company on or before October 3, 1911.

Erection of Laboratory, Riverside Citrus Experiment Station:

On September 12 it was voted to erect a laboratory building for the work of the Riverside Citrus Experiment Station, the cost of the laboratory and its equipment to be charged against the state appropriation of \$25,000 for the Riverside Citrus Experiment Station.

Architect for Buildings at Riverside and Whittier:

On September 12 it was voted that Mr. Lester A. Moore, of Los Angeles, be architect for a laboratory to be erected at the Riverside Citrus Experiment Station and construction work to be performed at the Pathological Laboratory at Whittier.

Agricultural Demonstration Train:

On August 8 President Wheeler reported that the Agricultural demonstration train had been visited during 1910-11 by over 73,000 people, that it was of great service to the state, but that, although the Southern Pacific Company generously defrayed the cost of the train service, the work, nevertheless, meant large expense to the University and interference with the duties of the members of the faculty of the College of Agriculture. It was voted to continue the operation of the Agricultural demonstration train.

Quitclaim Deed for Petaluma Poultry Experiment Station:

On August 8 it was voted that a quitclaim deed should be executed to George P. McNear for the Petaluma Poultry Experiment Station (the five-acre site for the station having been leased from Mr. McNear on January 18, 1904, upon the condition that should the experiment station at any time be abandoned, the lease should at once terminate). The site to which the Regents thereby relinquished any claim was five acres in the Whitney tract, half a mile east of Petaluma, Sonoma County, the land being described as follows:

Commencing in the center of a sixty (60) foot road, four hundred and twenty (420) feet south of the County Road leading from Petaluma to San Rafael; thence running south in the center of the road three hundred and eighty (380) feet to the land heretofore conveyed by said George P. McNear to R. Holm; thence east on the line of R. Holm five hundred and seventy-five (575) feet; thence north three hundred and eighty (380) feet to the place of beginning.

License to Sell Fertilizer Refused Johnson Fertilizer Association:

On August 8 it was voted to refuse to grant to the Johnson Fertilizer Association a license to sell as a fertilizer the ground Nevada rock which they wished to offer for sale as a fertilizer, inasmuch as Professor John S. Burd, the University Fertilizer Control chemist, had reported that he believed that the product which they wished to sell as a fertilizer was practically worthless.

Richardson Latin Prize Endowment:

The lot on Eunice street, Berkeley, bequeathed to the Regents by Professor George Morey Richardson, as endowment for an annual prize in Latin Prose Composition, were sold, by vote of the Regents on September 12, 1911, to Katharine H. Roulstone for \$1600.

Trust Funds of the Y. W. C. A. and the Alumnae Y. W. C. A.:

On January 9 the following resolutions were adopted:

Resolved, That, in accordance with the offer of the Young Women's Christian Association of the University of California, a corporation, the Regents accept from it the sum of five thousand dollars (\$5000), to be held by them in trust and invested and

reinvested as they may deem wise; the income thereof to be paid to said Young Women's Christian Association to be used by it in the payment of the salary of a secretary. Either the Regents or said Young Women's Christian Association shall have the right to put an end to said trust at any time upon thirty days' previous notice in writing to that effect, and upon such termination the said sum of five thousand dollars, together with any accrued income not theretofore paid to the Young Women's Christian Association, shall be paid over to the latter.

Similar resolutions were adopted, accepting \$600 from the Alumnae Young Women's Christian Association, on exactly the same terms.

It was approved that the Regents should, until further action by the Board, pay over income on these trust funds at the rate of 5 per cent per annum, payments to be made semi-annually.

Endowment Pool Rate:

On September 12 it was reported to the Board that the Endowment Pool rate for the six months ending June 30, 1911, was at the rate of 6.24 per annum.

On April 9 it was reported to the Board that the Endowment Pool income for the half-year ending December 31, 1911, was at the rate of 5.82 per annum.

Pacific Gas and Electric Company Bonds:

On March 12 it was reported that a gain of \$500 for the Endowment Pool had been made through the fact that two 5 per cent bonds of the Pacific Gas and Electric Company, carried in the books at the purchase price of \$800 each, had been redeemed by the company at 105 and accrued interest.

Fund of Students' Coöperative Society:

On December 22 the action of the Finance Committee was approved in accepting from the Students' Coöperative Society the custody of their surplus fund of \$11,000 and guaranteeing interest on it at 5 per cent, this interest to accumulate semi-annually, and the money to be available to be withdrawn when the Students' Coöperative Society may desire, the intention of the Society being to use it eventually for the equipment of permanent quarters.

Summer Session Endowment:

On December 22 it was voted that \$6000 of the accumulated surplus of the past two Summer Sessions be added to the Endowment Pool as an endowment for the Summer Session, the income to be used for extraordinary purposes of the Summer Session.

Agreement with Country Club Heights Company:

On March 12 the President and Secretary of the Board were authorized and directed to execute an agreement with the Country Club Heights Company, as prepared by the Attorney of the Regents, for the sale of the land owned by the Regents in the Broadway Terrace Tract, Oakland, at \$71,000, the buyers to pay \$10,000 down and the balance in six annual installments, the first five of these being in the amount of \$10,000, and the final installment in the amount of \$11,000, with interest at 6 per cent on deferred payments; releases to be given by the Regents on individual lots on the completion of payment by the Country Club Heights Company for such individual lots, on the basis of a schedule constituting a part of the agreement. The Country Club Heights Company assumed the cost of street work and improvements. The proceeds of this sale constitute part of the endowment of the Agassiz Chair of Oriental Languages, founded by the late Edward Tompkins, a Regent of the University.

Title to Certain Broadway Terrace Tract Lots:

On November 14 the Attorney of the Regents was authorized to file a disclaimer for lots 3, 4, and 5, in Block F, Broadway Terrace Tract, Oakland, upon the payment by Mr. Henry St. George Hopkins of \$60, with interest from May 16, 1905, to the date of the disclaimer, at the legal rate of 7 per cent. This was recommended by the Attorney of the Regents as a proper settlement of a pending suit, brought by Mr. Hopkins against the Regents.

Street Assessment, Fourteenth and Washington streets, Oakland:

On April 9 it was approved that the assessment of \$8000 against the property at Fourteenth and Washington streets, Oakland, for the opening of Washington street, should not be contested.

Quitclaim Deed to Emily K. Latham:

On March 12 the President and Secretary of the Board were authorized and directed to execute, upon approval by the Attorney of the Regents, a quitclaim deed, with proper assignments, to Emily K. Latham for the lot at the northwest corner of Durant and Telegraph avenues, Berkeley, with a frontage of 104.82 feet on Durant avenue and 120 feet on Telegraph avenue.

Blake, Moffitt, and Towne Lease:

On February 13 the action of the Finance Committee was approved and confirmed in authorizing the execution of a lease to Messrs. Blake, Moffitt, and Towne, prepared and approved by the Attorney of the Regents, dated January 25, 1912, for a reinforced concrete building on First street, for a term of ten years, beginning June 1, 1911, at a rental of \$918.71 per month.

Agreement as to Floors in Blake, Moffitt, and Towne Building:

On November 14 the President and Secretary of the Board were authorized to execute an agreement with Blake, Moffitt, and Towne, providing that no claim shall be made against the tenant at the time of the expiration of their lease on account of the condition of the floors in the Blake, Moffitt, and Towne Building.

Settlement with Creditors' Committee of Standard Construction Company:

On September 12 the action of the Finance Committee was approved in having a settlement arranged by the Attorney of the Regents with the creditors' committee, whereby \$12,189.24, the amount then remaining due to the Standard Construction Company under its contract for \$51,636 for work done on the Blake, Moffitt, and Towne Building, was paid to the creditors of this company on a pro rata basis of \$0.911 on the dollar.

Standard Construction Company, Interpleader Suit:

On November 14 the Attorney of the Regents was authorized to bring an interpleader suit against the creditors of the Standard Construction Company, which had the contract for the concrete work for the Blake, Moffitt, and Towne Building, and against the Trustee in Bankruptcy of the Standard Construction Company, in order to have determined judicially the amount due to the

Regents from the Standard Construction Company, and the matter of payment or distribution. The Regents still held approximately \$12,189 of the contract amount. The object of this suit was to protect the interests of the University in the payment or distribution among the creditors of the amount still due under the contract.

General Indemnity Bond in Favor of Southern Pacific for Removal of Freight:

On February 13 the President and Secretary were authorized to sign in behalf of the Regents a general indemnity bond to be given by the Regents, in favor of the Southern Pacific, for \$1000, for the removal of freight from San Francisco or Berkeley, without surrender of bills of lading, and a similar bond for \$2000 for the removal of freight at Fresno and Kerman.

Claim of Messrs. MacDonald & Applegarth for Architectural Fees:

On August 8 it was voted to refer to the Finance Committee and to the Attorney of the Board a communication from Messrs. Heller, Powers, & Ehrman, attorneys for MacDonald & Applegarth, presenting a claim against the Regents for \$12,106.50, claimed as fees for plans for a building on Sutter street.

On September 12 it was reported to the Board that papers had been served on the Secretary in the suit of MacDonald & Applegarth vs. the Regents for fees claimed for architectural services claimed to have been rendered.

Resolution Recommending that State Highway pass Through Kearney Vineyard:

On January 9 it was voted to adopt the following resolution:

Resolved, That the Regents of the University of California earnestly recommend the State Highway Commission that the main state highway for the San Joaquin Valley be so established that the Kearney boulevard from Kearney Park to Fresno shall be made a constituent part of this highway, it being the sense of the Board that such location of the highway is recommended by the present and future scenic, educational, and scientific significance of the Kearney Estate, and by the value to the state of easy and general public access to its ornamental, educational, and

economic aspects; and, further, that such location of the highway is imperatively indicated by the character of the topography, the present provision of roads and bridges, the richness of the country traversed, and the amount of population as compared with other proposed routes.

DEGREES, SCHOLARSHIPS, AND MILITARY COMMISSIONS

Degrees:

For a complete list of the degrees conferred on December 22, 1911, and May 14, 1912, and of the recipients of scholarships and of military commissions for 1911-12, see the Commencement Programme of June, 1912.

University Medal:

The University Medal for 1912, on recommendation of the Academic Council and by vote of the Regents, was conferred upon Lester Seward Ready.

LEASES

During the year leases were approved by the Board as follows:

Lessee	Property	Term	Total Amount
Messrs. Blake, Moffitt, & Towne,	Building on First street, San Francisco,	10 years, beginning June 1, 1911	\$918.71 per month
Reinhart Lumber and Planing Mill Co.,	Block 138. Potrero addition to San Francisco,	Jan. 1, to June 30, 1912,	150.00 per month
		July 1, 1912, to June 30, 1913,	200.00 per month
		July 1, 1913, to June 30, 1914,	225.00 per month
		July 1, 1914, to Dec. 31, 1916	250.00 per month
Emma A. Kreutzer,	University Cottage No. 4, Campus,	July 1, 1911, to Dec. 31, 1912	25.00 per month
Lucy Sprague (for a girls' club),	2642 Sylvan way, Berkeley,	Aug. 15, 1911, to June 30, 1912	55.00 per month
Alice C. Lynch,	160 acres in Monterey County and 1016 acres in San Luis Obispo County,	Three years	235.20 per annum
Dr. W. P. Burks,	240 acres, Squaw Valley, Fresno County,	Five years	24.00 per annum
Samuel B. Stanley,	79.93 acres in Strawberry Cañon, Berkeley,	July 1, 1911, to June 30, 1913	35.00 per month
H. Robert Fares,	152 Cañon road, Strawberry Cañon, Berkeley,	Terminable on one month's notice	3.00 per month
Linwood Kelley,	150 Cañon road, Strawberry Cañon, Berkeley,	Terminable on one month's notice	5.00 per month

APPENDIX

STATEMENT OF EXPENDITURES FROM THE "THREE-CENT
TAX" (1910-11) AND THE "UNIVERSITY FUND" (1911-12).

SALARY ROLL, TABLES OF INCOME AND EXPENDITURES,
RECEIPTS AND CHARGES (REVENUE ACCOUNT) AND
BALANCE SHEET.

STATEMENT OF EXPENDITURES FROM THE "THREE-CENT TAX" FOR THE YEAR ENDING JUNE 30, 1911

Administration:		
Salaries	\$72,385.41	
Fellowships	3,200.00	
Expenses	37,982.99	
Electric Light and Power, maintenance and repairs	35,537.42	
General repairs	16,951.38	
Water	5,500.84	
Publications	8,987.40	
Equipment	3,170.52	
Fuel	1,588.58	
Telephone, Telegraph and Express	5,119.05	
Postage	2,243.89	
Auditing	2,011.15	
Stationery	1,271.19	
University Site, maintenance	17,684.65	
Administrative Printing	9,979.77	
		\$223,614.24
University Library		46,774.87
Departmental Expenditures:		
Agriculture	\$26,229.20	
Anthropology	7,459.88	
Architecture	7,443.13	
Astronomy (Berkeley Department)	8,719.03	
Botany	14,211.55	
Chemistry	27,850.06	
Civil Engineering	20,068.24	
Drawing	8,131.34	
Economics	2,401.86	
Lick Observatory	25,974.35	
Mathematics	20,965.33	
Mechanics	15,100.97	
Medicine (San Francisco)	14,953.97	
Military Science	2,484.01	
Mining	16,799.84	
Oriental Languages	1,546.16	
Palaeontology	5,061.60	
Pathology	8,504.72	
Philosophy	4,180.23	
Physical Culture	6,199.88	
Physics	14,905.70	
		259,191.05
State of California Scholarships		3,500.00
Permanent Building Fund		177,693.39
		\$710,773.55
CASH RECEIVED		
December 15, 1910	\$19,862.86	
January 7, 1911	80,000.00	
January 19, 1911	371,082.49	
June 5, 1911	150,000.00	
July 11, 1911	89,828.20	
		\$710,773.55

STATEMENT OF EXPENDITURES FROM THE "STATE UNIVERSITY FUND" FOR THE YEAR ENDING JUNE 30, 1912

Administration:

Salaries	\$84,254.67
Fellowships	4,000.00
Expenses	41,416.60
Electric Light and Power, maintenance and repairs	43,887.27
General repairs	18,879.41
Water	8,346.39
Publications	10,150.72
Equipment	3,586.19
Fuel	1,945.10
Telephone, Telegraph and Express	5,979.11
Postage	2,775.46
Auditing	2,052.90
Stationery	1,380.55
University Site, maintenance	16,607.65
Administrative Printing	11,420.01

\$256,682.0
69,321.5

University Library

Departmental Expenditures:

Agriculture	\$27,140.70
Anthropology	9,100.37
Architecture	9,480.96
Astronomy (Berkeley department)	9,654.56
Botany	16,676.48
Chemistry	21,648.02
Civil Engineering	22,351.37
Drawing	8,439.80
Economics	5,303.73
Lick Observatory	26,544.27
Mathematics	24,058.84
Mechanics	19,406.77
Medicine (San Francisco)	11,247.77
Military Science	3,013.64
Mining	16,261.10
Oriental Languages	1,817.56
Palaeontology	5,599.92
Pathology	3,271.33

241,017.19

State of California Scholarships

3,375.00

Permanent Building Fund

190,131.92

\$760,527.70

CASH RECEIVED

September, 1911	\$277,546.23
November, 1911	150,000.00
April, 1912	332,981.47

\$760,527.70

SALARY ROLL, TABLES OF INCOME AND EXPENDITURE,
RECEIPTS AND CHARGES (REVENUE ACCOUNT)
AND BALANCE SHEET*

SALARY ROLL FOR 1910-11

Salaries are for the Year from July 1, 1910, to June 30, 1911,
unless otherwise stated.

Administration

Benj. I. Wheeler, President	\$12,000.00	
V. H. Henderson, Secretary and Land Agent	3,600.00	
F. A. Cutler, Attorney for the Board of Regents	3,600.00	
James Sutton, Recorder	2,200.00	
Lucy Sprague, Dean of Women and Asst. Prof. of English....	2,000.00	
H. E. Gibson, Accountant	2,400.00	
H. L. Wright, Clerk	1,000.00	
W. J. Belcher, Purchasing Agent, from July 1 to August 12 at \$2,000 per annum	233.32	
Farnham P. Griffiths, Secretary to the President	1,800.00	
F. C. Stevens, President's Stenographer	1,200.00	
May L. Cheney, Appointment Secretary	1,400.00	
Florence H. Fortson, Assistant to the Recorder, July 1 to July 31 at \$1,000 per annum	83.33	
Maud Percival, Clerk in Office of Appointment Secretary	720.00	
R. W. Blair, Asst. Appointment Secretary, from July 1 to July 21 at \$600 per annum	35.00	
Albert H. Allen, Manager of the University Press	1,500.00	
E. A. Hugill, Superintendent of Grounds and Buildings	2,000.00	
Irving Markwart, Asst. Appointment Secretary, from July 21, 1910, to June 30, 1911, at \$600 per annum	566.66	
Lucy Stebbins, Asst. Dean of Women from January 1 to June 30, 1911, at \$1,500 per annum	750.00	
		\$37,088.30

Library

J. C. Rowell, Librarian	\$3,000.00	
Harold L. Lenpp, Associate Librarian and Purchasing Agent	3,000.00	
E. R. Mead, Reference Librarian and Classifier	1,800.00	
A. B. Smith, Head of Order Department	1,800.00	
Ulrich Graff, Head of Circulation Department	1,300.00	
Pauline Gunthrop, Head Cataloguer	1,000.00	
Stella Bennett, Cataloguer, at \$900 per annum, leave of absence without pay for October	825.00	
<i>Carried forward</i>	\$12,725.00	\$37,088.30

* Compiled by the Comptroller.

<i>Brought forward</i>	\$12,725.00	\$37,088.30
Louise W. Katz, Cataloguer	950.00	
Lillian Burt, Accessions Cataloguer	950.00	
Elizabeth M. Haskell, Clerk to the Librarian, from July 1 to March 31 at \$900 per annum	675.00	
Edna Goss, Asst. in Catalogue Dept., from April 15 to June 30, 1911, at \$900 per annum	187.50	
R. C. Woodmansee, Head of Shelf Department	1,200.00	
W. K. Porter, Asst. in Library, from July 1 to Sept. 30, at \$600 per annum, from October 1 to June 30, 1911, at \$480 per annum	510.00	
F. M. Bumstead, Head of Binding and Serials Dept.	1,060.00	
Helen G. Sheldon, Desk Asst., from July 1, 1910, to June 10, 1911, at \$900 per annum	850.00	
Wm. M. Gwyn, Desk Asst.	300.00	
Sarah S. Oddie, Asst. Reference Librarian, from July 1 to Nov. 30, at \$900 per annum	375.00	
C. B. Joeckel, Asst. Ref. Librarian, from June 1 to June 30, 1911, at \$1,500 per annum	125.00	
Winifred H. Bigley, Serials Dept. Asst.	660.00	
C. M. Jones, Reading Room Attendant	300.00	
Marie Tollefson, Binding Asst.	660.00	
Alice Lyser, Asst. in Periodical Dept., from Dec. 1, 1910, to June 30, 1911, at \$1,000 per annum	583.31	
Frances Mecum, Desk Asst., from July 1 to Oct. 31, at \$300 per annum; from Nov. 1 to June 30, 1911, at \$600 per annum	500.00	
		<hr/> 22,610.81

Agriculture

E. J. Wickson, Prof. of Agriculture and Director of Experiment Station	\$4,000.00	
E. W. Hilgard, Emeritus Prof. of Agriculture	2,666.64	
Leroy Anderson, Prof. of Agricultural Practice and Supt. of University Farm Schools	3,000.00	
M. E. Jaffa, Prof. of Nutrition, in charge of Poultry Station, without salary.		
C. W. Woodworth, Assoc. Prof. of Entomology	2,700.00	
R. H. Loughridge, Prof. of Agricultural Chemistry, Emeritus	1,466.00	
G. W. Shaw, Assoc. Prof. of Experimental Agronomy and Agricultural Technology	2,400.00	
R. E. Smith, Assoc. Prof. of Plant Pathology and Supt. Southern California Pathological Laboratory and Experiment Station: salary at \$2,700 per annum, on leave without salary from August 1 to December 31.....	1,575.00	
E. W. Major, Assoc. Prof. of Animal Industries and Farm Manager, University Farm	2,400.00	
G. E. Colby, Asst. Prof. of Agricultural Chemistry, in charge of Laboratory of Agricultural Chemistry	1,800.00	
H. J. Quayle, Asst. Prof. of Entomology	1,900.00	
W. T. Clarke, Asst. Prof. of Horticulture and Supt. of University Extension in Agriculture	2,200.00	
		<hr/>
<i>Carried forward</i>	\$26,107.64	\$59,699.11

SALARY ROLL

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<i>Brought forward</i>	\$26,107.64	\$59,699.11
John S. Burd, Asst. Prof. of Agricultural Chemistry, in charge of Fertilizer Control	2,000.00	
C. M. Haring, Asst. Prof. of Veterinary Science	1,900.00	
E. B. Babcock, Asst. Prof. of Agricultural Education	1,900.00	
F. T. Bioletti, Assoc. Prof. of Viticulture	2,400.00	
J. H. Norton, Asst. Prof. of Agricultural Chemistry	1,800.00	
Wm. B. Herms, Asst. Prof. of Entomology	1,700.00	
H. A. Hopper, Asst. Prof. of Dairy Husbandry, July 1 to December 31, at \$1,900 per annum	950.00	
J. B. Neff, Conductor of Farmers' Institutes	1,000.00	
E. J. Lea, Instr. in Agricultural Chemistry	1,600.00	
R. E. Mansell, Instr. in Horticulture, in charge of Agricultural Grounds	1,400.00	
C. H. McCharles, Instr. in Agricultural Chemistry, from Sept. 1, 1910, to June 30, 1911, at \$1,200 per annum....	1,000.00	
E. H. Hagemann, Instr. in Dairying	1,600.00	
T. F. Hunt, Asst. in Plant Pathology	1,400.00	
E. H. Smith, Asst. in Plant Pathology	1,190.00	
C. O. Smith, Asst. in Plant Pathology	1,200.00	
A. J. Gaumnitz, Asst. in Agronomy	1,500.00	
P. L. McCreary, Asst. in Fertilizer Control	1,400.00	
M. E. Stover, Asst. in Agricultural Laboratory	1,000.00	
P. L. Hibbard, Asst. in Fertilizer Control	1,100.00	
F. E. Johnson, Asst. in Soil Laboratory	900.00	
Chas. Fuchs, Asst. in Entomological Museum	900.00	
J. T. Bearss, Foreman Kearney Exper. Station	900.00	
N. D. Ingham, Asst. in Sylviculture	1,200.00	
D. L. Bunnell, Clerk to Director	1,000.00	
Fred L. Yeaw, Asst. in Plant Pathology	1,400.00	
A. M. Cleghorn, Principal of University Farm School and Instructor in English and Mathematics	1,600.00	
Roscoe Farrar, Instr. in Soils and Farm Crops, from July 1, 1910, to December 31, 1910, at \$1,300 per annum	650.00	
Wm. T. Horne, Asst. Prof. of Plant Pathology	1,800.00	
J. E. Coit, Asst. Prof. of Pomology	2,000.00	
B. A. Madson, Asst. in Cereal Laboratory, from Aug. 13, 1910, to June 30, 1911, at \$1,000 per annum	886.07	
C. B. Lipman, Asst. Prof. of Soils	1,500.00	
L. Bonnet, Asst. in Viticulture	1,000.00	
R. M. Roberts, Instr. in Farm Practice	1,500.00	
H. Phillips, Instr. in Animal Industries (Sheep and Swine)	1,500.00	
F. D. Hawk, Instr. in Animal Industries (Dairy Cattle).....	1,400.00	
B. S. Brown, Instr. in Horticulture, University Farm	1,200.00	
L. M. Davis, Instr. in Dairy Industry, University Farm.....	1,200.00	
Katherine Winans, Matron of Dormitory and Manager of Dining Hall, University Farm	750.00	
S. S. Rogers, Asst. Plant Pathologist	1,080.00	
W. E. Packard, Field Asst. Imperial County Investigations	1,500.00	
Cyril A. Stebbins, Instr. Agricultural Education	1,200.00	
E. E. Thomas, Asst. Agricultural Chemistry	1,000.00	
<i>Carried forward</i>	\$82,213.71	\$59,699.11

<i>Brought forward</i>	\$82,213.71	\$59,699.11
J. I. Thompson, Instr. in Animal Industry	1,400.00	
C. M. Titus, Instr. in Farm Mechanics, from Sept. 1, 1910, to June 30, 1911, at \$1,400 per annum	1,166.60	
F. C. H. Flossfeder, Field Asst. in Viticulture, from August 22, 1910, to June 30, 1911, at \$1,200 per annum	1,054.83	
J. C. Bridwell, Instr. in Entomolgy	1,500.00	
Anna Hamilton, Asst. in Entomology, from December 1, 1910, to June 30, 1911, at \$900 per annum	525.00	
J. S. Hunter, Field Asst. in Mosquito Studies in San Mateo County (without salary).		
Earl Morris, Field Asst. in Santa Clara County in a study of the Life History of the California Peach Root Borer and Treatment thereof (without salary).		
W. H. Volck, Field Assistant in Monterey County in the Control of Potato Worm, and in Santa Cruz County in special study of control measures for the woolly aphid (without salary).		
		87,860.14

Anatomy

R. O. Moody, Asst. Prof. of Anatomy	\$2,000.00	
A. M. dal Piaz, Instr. in Anatomy	1,200.00	
Edw. F. Miller, Technical Asst. in Anatomy	1,000.00	
R. W. Harvey, Instr. in Anatomy	1,500.00	
Marjorie M. Johnson, Asst. in Anatomy	600.00	
		6,300.00

Anthropology

A. L. Kroeber, Asst. Prof. and Secretary of Department of Anthropology and Curator of Anthropological Museum....	\$2,200.00	
T. T. Waterman, Instr. in Anthropology and Asst. Curator....	1,000.00	
N. C. Nelson, Instr. and Asst. Curator	1,000.00	
Mrs. E. G. Field, Asst. Secretary, from July 1, 1910, to May 31, 1911, at \$900 per annum	825.00	
Arthur Poyser, Preparator	840.00	
Arthur Warburton, Preparator	960.00	
E. D. Thayer, Jr., Asst. Secretary, from June 1, to June 30, at \$780 per annum	65.00	
		6,890.00

Architecture

John Galen Howard, Prof. of Architecture (on leave at two- thirds salary)	\$2,666.64	
W. C. Hays, Asst. Prof. of Architecture (part time)	1,200.00	
H. W. Seawell, Instr. in Water-coloring and Pen and Ink Drawing	600.00	
M. Earl Cummings, Instr. in Modeling	200.00	
H. H. Gutterson, Instructor	1,000.00	
Bessy Sprague, Librarian and Clerk	840.00	
		6,506.64
<i>Carried forward</i>		\$167,255.89

SALARY ROLL

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Brought forward \$167,255.89

Astronomy

A. O. Leuschner, Prof. of Astronomy and Director of Students' Observatory	\$3,300.00	
R. T. Crawford, Assoc. Prof. of Practical Astronomy	2,400.00	
S. Einarsson, Instr. in Practical Astronomy	1,000.00	
W. F. Meyer, Instr. in Astronomy	1,000.00	
A. J. Champreux, Instr. in Mathematics and Astronomy, from July 1 to August 23, at \$600 per annum	87.10	
		7,787.10

Botany

W. A. Setchell, Prof. of Botany (on leave, second half-year at two-thirds salary)	\$3,000.00	
R. A. Harper, Assoc. Prof. of Botany, from January 1 to June 30, 1911, at \$4,000 per annum	2,000.00	
W. L. Jepson, Asst. Prof. of Dendrology	2,000.00	
H. M. Hall, Asst. Prof. of Economic Botany and Asst. Botanist to Agricultural Experiment Station	1,800.00	
H. Goodspeed, Asst. in Botany	720.00	
C. W. Shuquist, Janitor and Mech.	720.00	
C. A. Purpus, Botanical Collector (without salary).		
T. S. Brandegee, Honorary Curator in the Herbarium (without salary).		
		10,240.00

Celtic

J. J. O'Hegarty, Reader in Irish	\$500.00	
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Chemistry

E. O'Neill, Prof. of Inorganic Chemistry	\$3,600.00	
W. C. Blasdale, Asst. Prof. of Chemistry	2,000.00	
F. G. Cottrell, Asst. Prof. of Physical Chemistry	2,000.00	
W. C. Morgan, Asst. Prof. of Chemistry	2,000.00	
H. C. Biddle, Asst. Prof. of Chemistry	2,000.00	
Edward Booth, Asst. Prof. of Chemistry	1,500.00	
Chas. Gilman, Asst. in Chemistry	1,100.00	
Edna Pracy, Asst. in Chemistry	600.00	
H. V. Welch, Asst. in Chemistry	900.00	
J. A. Madsen, Laboratory Mechanic	1,100.00	
W. C. Riddell, Asst. in Chemistry	900.00	
H. M. Severance, Asst. in Chemistry	600.00	
J. T. Winkler, Asst. in Chemistry	500.00	
O. L. Brauer, Asst. in Chemistry	400.00	
V. R. Edwards, Asst. in Chemistry	400.00	
E. S. Alderman, Asst. in Chemistry	400.00	
Sarah F. Rising, widow of W. B. Rising, deceased	1,035.00	
		21,035.00

Civil Engineering

Chas. Derleth, Jr., Prof. of Civil Engineering	\$3,600.00	
Frank Soule, Prof. Emeritus of Civil Engineering	2,200.00	
Chas. Gilman Hyde, Prof. of Sanitary Engineering	3,000.00	
F. H. Tibbetts, Asst. Prof. of Civil Engineering	1,800.00	
T. B. Sears, Assoc. Prof. of Railroad Engineering	2,400.00	

Carried forward \$13,000.00 \$206,817.99

<i>Brought forward</i>	\$13,000.00	\$206,817.99
A. C. Alvarez, Instr. in Civil Engineering	1,200.00	
H. J. Kesner, Instr. in Civil Engineering	1,200.00	
Val. Arntzen, Expert Mechanic in Civil Engineering Laboratory	1,800.00	
Nettie Meek, Clerk	1,000.00	
A. J. Eddy, Instr. in Civil Engineering	1,000.00	
H. S. Griswold, Instr. in Civil Engineering	1,200.00	
H. H. Harder, Asst. in Testing Laboratory	780.00	
		21,180.00

Dental Department

Dr. J. G. Sharp, Professor of the Principles and Practice of Surgery, and Dean	\$1,000.00	
Dr. G. S. Millberry, Superintendent and Professor of Chemistry and Metallurgy	3,000.00	
S. W. Hussey, Demonstrator in Clinical Dentistry	1,200.00	
Dr. H. B. Carey, Instr. in Anatomy and Histology, Materia Medica and Therapeutics	600.00	
Dr. Edward H. Mauk, Instr. in Technics	800.00	
Dr. Elmer E. Evans, Asst. Instructor	200.00	
Dr. W. F. Sharp, Professor of Prosthetic Dentistry	500.00	
Dr. J. D. Hodgen, Professor of Operative Dentistry	500.00	
Dr. J. B. Tufts, Professor of Dental Pathology and Therapeutics and Orthodontia	500.00	
Dr. G. L. Bean, Professor of Dental Porcelain	500.00	
Dr. H. T. Moore, Lecturer on Surgery	100.00	
Dr. S. W. Hall, Instr. in Extracting	100.00	
Dr. Louis Graham, Asst. in Operative Dentistry	100.00	
Dr. R. A. Day, Instr. in Orthodontia Technic	100.00	
Dr. A. H. Suggett, Lectr. and Clinical Instr. in Orthodontia	150.00	
Dr. S. C. Davis, Asst. in Dental Porcelain, without salary.		
Dr. F. B. Kenward, Asst. in Dental Porcelain	100.00	
Dr. J. E. Gurley, Laboratory Asst. in Chemistry	150.00	
Dr. M. T. Rhodes, Demonstrator in Clinical Dentistry	100.00	
Dr. O. P. Roller, Special Instr. in Dental Porcelain, without salary.		
Dr. S. S. Maxwell, Assoc. Professor in Physiology	350.00	
A. W. Lee, Instr. in Bacteriology and Pathology	500.00	
Mr. Louis Bartlett, Lecturer in Dental Jurisprudence	50.00	
Dr. R. E. Keys, Librarian	300.00	
Dr. Malcolm Goddard, Instr. in Comparative Anatomy, without salary.		
Dr. P. T. Carrington, Curator of the Museum, without salary.		
		10,900.00

Drawing

H. Kower, Assoc. Prof. of Drawing	\$2,700.00	
W. J. Wythe, Asst. Prof. in Drawing	1,600.00	
C. Chapel Judson, Asst. Prof. in Drawing	1,600.00	
H. B. Monges, Instr. in Drawing	1,200.00	
K. E. Neuhaus, Instr. in Drawing	900.00	
		8,000.00
<i>Carried forward</i>		\$246,897.99

Brought forward \$246,897.99

Economics

A. C. Miller, Flood Prof. of Political Economy and Commerce	\$4,000.00
C. C. Plehn, Prof. of Finance on the Flood Foundation	3,300.00
H. R. Hatfield, Prof. of Accounting on the Flood Foundation, and Secretary of College of Commerce	3,300.00
W. C. Mitchell, Prof. of Political Economy on the Flood Foundation (on leave at two-thirds salary)	2,000.00
Lincoln Hutchinson, Asst. Prof. of Commerce on the Flood Foundation, and Advisor	2,700.00
Jessica B. Peixotto, Asst. Prof. of Sociology (on leave for first half-year at two-thirds salary)	1,533.24
Stuart Daggett, Asst. Prof. of Railway Economics on the Flood Foundation	2,000.00
W. C. Fankhauser, Flood Fellow in Commerce	400.00
A. R. Williams, Flood Fellow in Commerce	400.00
J. S. Scotford, Special Lecturer on Advertising (without salary).	
Solomon Blum, Asst. in Economics	700.00
Donald English, Asst. in Economics, from July 1 to Sept. 15, at \$500 per annum	104.15

20,437.39

Education

A. F. Lange, Prof. of the Theory and Practice of Education	\$4,000.00
E. E. Brown, Hon. Prof. of Education (without salary).	
D. P. Barrows, Prof. of Education	3,000.00
W. S. Thomas, Asst. Prof. of Education and Examiner of Schools	2,200.00
C. E. Rugh, Assoc. Prof. of Education	2,700.00
R. G. Boone, Lecturer in Education	3,000.00
John Swett, Honorary Lecturer (without salary).	
E. O. James, Fellow in Education	600.00

15,500.00

Electric Light and Power

Ira E. Currier, Engineer	\$1,200.00
W. H. Lozier, Electrician	1,200.00
A. D. White, Storekeeper and Machinist	1,200.00

3,600.00

English

C. M. Gayley, Prof. of the English Language and Literature	\$4,000.00
C. B. Bradley, Prof. of Rhetoric	2,700.00
C. W. Wells, Assoc. Prof. of English Composition (on leave at two-thirds salary; salary to be \$2,700 from July 1, 1911)	1,600.00
Wm. D. Armes, Assoc. Prof. of American Literature	2,000.00
T. F. Sanford, Asst. Prof. of English Literature	1,700.00
M. C. Flaherty, Assoc. Prof. of Forensics	2,400.00
W. M. Hart, Assoc. Prof. of English Philology	2,400.00

Carried forward \$16,800.00 \$286,435.38

<i>Brought forward</i>	\$16,800.00	\$286,435.38
B. P. Kurtz, Asst. Prof. of English	1,800.00	
G. A. Smithson, Instr. in English Philology	1,100.00	
C. D. von Neumayer, Instr. in Public Speaking	1,500.00	
F. T. Blanchard, Instr. in English	1,100.00	
H. E. Cory, Instr. in English	1,100.00	
G. R. MacMinn, Instr. in English	1,000.00	
L. Bacon, Instr. in English	1,000.00	
M. E. Harrison, Teaching Fellow in English	600.00	
		26,000.00

Geography

George Davidson, Emeritus Prof. of Geography	700.00	
R. S. Holway, Asst. Prof. of Physical Geography	2,000.00	
Earle G. Linsley, Instr. in Geography	1,200.00	
		3,900.00

Geology and Mineralogy

A. C. Lawson, Prof. of Mineralogy and Geology	\$4,000.00	
G. D. Louderback, Assoc. Prof. of Geology	2,200.00	
A. S. Eakle, Asst. Prof. of Mineralogy	1,800.00	
H. O. Wood, Instr. in Mineralogy and Geology	1,300.00	
E. E. Behr, Asst. in Mineralogy and Geology	600.00	
J. A. Sampson, Asst. in Mineralogy and Geology	600.00	
R. M. Rowe, Asst. in Mineralogy and Geology	900.00	
		11,400.00

German

H. K. Schilling, Prof. of German Language and Literature, leave of absence on full pay from February 23 to June 30, 1911	\$4,000.00	
A. Putzker, Emeritus Prof. of German Literature	2,000.00	
J. H. Senger, Assoc. Prof. of German	2,400.00	
L. J. Demeter, Asst. Prof. of German	1,700.00	
Clarence Paschall, Asst. Prof. of German	1,600.00	
Fritz Winther, Instr. in German (on leave first half-year, without salary)		
R. Pinger, Instr. in German	1,400.00	
F. A. Wyneken, Asst. in German	500.00	
Sophie Wolff, Asst. in German	500.00	
F. Schraidt, Asst. in German	500.00	
Paul Boehncke, Asst. in German, from January 1 to June 30, at \$900 per annum	450.00	
		15,050.00

Greek

E. B. Clapp, Prof. of the Greek Language and Literature...	\$4,000.00	
Isaac Flagg, Prof. Emeritus of Greek	1,600.00	
J. T. Allen, Assoc. Prof. of Greek	2,400.00	
I. M. Linforth, Asst. Prof. of Greek	1,800.00	
		9,800.00

Carried forward \$352,585.38

SALARY ROLL

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Brought forward \$352,585.38

History

H. Morse Stephens, Prof. of History	\$5,000.00
T. R. Bacon, Prof. of Modern European History	3,000.00
R. F. Scholz, Asst. Prof. of Ancient History	1,800.00
J. N. Bowman, Asst. Prof. of Mediaeval History	1,900.00
E. I. McCormac, Asst. Prof. of American History	1,600.00
Don E. Smith, Asst. Prof. of History and Geography and Secretary of Dept. of History	1,800.00
L. P. Briggs, Teaching Fellow in History	600.00
C. L. Goodwin, Teaching Fellow in History	600.00
C. E. Chapman, Teaching Fellow in History	600.00
A. von Hemert-Engert, Teaching Fellow in History	600.00

17,500.00

Hygiene

G. F. Reinhardt, Prof. of Hygiene and University Physician	\$3,600.00
C. R. Greenleaf, Hon. Prof. of Military and Public Hygiene (without salary).	
E. S. Bancroft, Lecturer on Hygiene and Medical Examiner	1,800.00
E. B. Hoag, Lecturer in Public Hygiene	1,200.00
W. A. Sawyer, Medical Examiner and Director of State Hygienic Laboratory	1,500.00
Margaret Henderson, Instr. in Bacteriology	1,200.00
C. B. McGlumphy, Asst. in State Hygienic Laboratory (salary is \$1,500, paid by the State).	
Ethel Sherman, Supt. of Infirmary	1,200.00
J. N. Force, Lecturer in Hygiene (without salary).	
Florence Sylvester, Lecturer in Hygiene (without salary).	

10,500.00

Irrigation

B. A. Etcheverry, Assoc. Prof. of Irrigation Engineering....	\$2,400.00
Albert E. Chandler, Asst. Prof. of the Institutions of Irrigation	1,600.00

4,000.00

Jurisprudence

Wm. Carey Jones, Prof. of Jurisprudence	\$4,000.00
Curtis H. Lindley, Hon. Prof. of Law of Mines and Water (without salary).	
Orrin K. McMurray, Prof. of Law	3,000.00
G. H. Boke, Prof. of Law (on leave two-thirds salary)	1,800.00
A. M. Kidd, Asst. Prof. of Law	2,000.00
M. C. Lynch, Instr. in Law	1,200.00
C. G. White, Lecturer in Law	500.00
Max Thelen, Lecturer in Law	500.00
Lester H. Jacobs, Lecturer on Law of Insurance	1,000.00
Farnham P. Griffiths, Lecturer in Law	500.00
W. E. Colby, Lecturer on the Law of Mines	360.00
A. G. Tasheira, Lecturer in Law	350.00
J. P. Chamberlain, Lecturer in Law (on leave without salary).	
Warren Olney, Jr., Lecturer in Law (on leave without salary).	

15,210.00

Carried forward \$399,795.38

Brought forward \$399,795.38

Latin

W. A. Merrill, Prof. of the Latin Language and Literature	\$4,000.00
L. J. Richardson, Assoc. Prof. of Latin	2,400.00
Clifton Price, Asst. Prof. of Latin	1,700.00
H. C. Nutting, Asst. Prof. of Latin	1,900.00
O. M. Washburn, Asst. Prof. of Archaeology	1,800.00
Torsten Petersson, Instr. in Latin	1,400.00
M. E. Deutsch, Instr. in Latin	1,200.00
Sereno B. Clark, Instr. in Latin	1,500.00

15,900.00

Lick Observatory

W. W. Campbell, Director and Astronomer	\$5,000.00
R. H. Tucker, Astronomer (on leave without salary).	
Heber D. Curtis, Astronomer	2,400.00
R. G. Aitken, Astronomer	2,700.00
W. H. Wright, Astronomer	2,400.00
Keivin Burns, Assistant	1,320.00
H. C. Wilson, Assistant	900.00
Paul W. Merrill, Fellow	600.00
R. Young, Fellow	600.00
Carl C. Kiess, Fellow	600.00
Violet E. Standen, Secretary	1,000.00
J. Macdonald, Engineer, from July 1 to Sept. 30, at \$1,200 per annum	300.00
J. E. Hoover, Carpenter	1,200.00
H. Bachman, Instrument-maker	1,200.00
W. N. Waterhouse, Janitor	720.00
J. H. Odlin, Laborer	960.00
Frank Knobloch, Laborer	660.00

Carnegie Fund

Miss A. M. Hobe, Assistant	1,000.00
C. P. Olivier, Assistant, from July 1 to December 31, 1910, at \$900 per annum	450.00

24,010.00

Mathematics

M. W. Haskell, Prof. of Mathematics	\$3,300.00
Geo. C. Edwards, Prof. of Mathematics	3,000.00
C. A. Noble, Asst. Prof. of Mathematics and Asst. Examiner	2,000.00
D. N. Lehmer, Assoc. Prof. of Mathematics	2,400.00
A. W. Whitney, Asst. Prof. of Mathematics and Insurance Methods (on leave without salary).	
T. M. Putnam, Asst. Prof. of Mathematics	1,800.00
J. H. McDonald, Asst. Prof. of Mathematics	1,600.00
Chas. Kuschke, Instr. in Mathematics	1,100.00
B. A. Bernstein, Instr. in Mathematics	1,100.00
B. M. Woods, Instr. in Mathematics	1,000.00
A. H. Mowbray, Instr. in Insurance	1,500.00
Adelaide Smith, Asst. in Mathematics	600.00

Carried forward \$19,400.00 \$439,705.38

SALARY ROLL

385

Brought forward \$19,400.00 \$439,705.38

H. W. Stager, Asst. in Mathematics, from July 1 to August 31, at \$600 per annum	100.00
P. W. Stoner, Asst. in Mathematics	600.00
W. A. Newlin, Asst. in Mathematics	600.00
H. N. Wright, Asst. in Mathematics	600.00
Mrs. Martha S. D. Stringham, widow of Prof. Irving Stringham	960.00

22,260.00

Mechanics

C. L. Cory, John W. Mackay, Jr., Prof. of Electrical Engineering and Director of Electric Light and Power Plant	\$4,000.00
F. G. Hesse, Emeritus Prof. of Hydraulics, from July 1, 1910, to January 27, 1911, at \$2,000 per annum	1,311.78
H. W. Reynolds, Assoc. Prof. Mechanical Engineering	2,100.00
J. N. LeConte, Asst. Prof. of Mechanical Engineering	2,000.00
G. C. Noble, Asst. Prof. of Electrical Engineering	1,600.00
C. F. Gilcrest, Instr. in Electrical Engineering	1,100.00
W. M. Griffiths, Instr. in Mechanical Engineering	1,000.00
G. E. Cox, Asst. in Mechanics and Foreman of Woodwork.....	1,500.00
James George, Asst. in Mechanics and Foreman in Ironwork	1,350.00
G. M. Thomas, Mackay Fellow	600.00

16,561.78

Medicine

Dr. A. A. D'Ancona, Dean	2,400.00
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Military Science and Tactics

E. M. Lewis, Prof. of Military Science, etc.	800.00
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Mining

S. B. Christy, Prof. of Mining and Metallurgy	\$4,000.00
E. B. Durham, Assoc. Prof. of Mining	2,400.00
E. A. Hersam, Assoc. Prof. of Metallurgy	2,400.00
W. S. Morley, Asst. Prof. of Metallurgy	1,800.00
George Spencer, Mechanician	1,200.00
E. P. Willoughby, Helper	1,000.00
W. A. McKee, Clerk	900.00
J. L. Talbot, Storekeeper and Helper	900.00
H. N. Herrick, Asst. in Mining and Mechanical Draughtsman	1,400.00

16,000.00

Music

J. F. Wollé, Prof. of Music	3,000.00
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Oriental Languages

John Fryer, Agassiz Prof. of Oriental Languages and Literatures	\$4,000.00
Y. S. Kuno, Asst. in Japanese	720.00

4,720.00

Carried forward \$505,447.16

Brought forward \$505,447.16

Palaeontology

John C. Merriam, Assoc. Prof. of Palaeontology and Historical Geology	\$2,700.00	
Bruce Clark, Asst. in Palaeontology, from July 1 to July 31, at \$1,000 per annum	83.33	
L. H. Miller, Instr. in Palaeontology, from July 1 to December 31, 1910, at \$1,200 per annum	600.00	
B. L. Clark, Instr. in Palaeontology, from January 1 to June 30, 1911, at \$1,200 per annum	600.00	
J. Guintylo, Asst. in Palaeontology, from Sept. 19, 1910, to June 30, 1911, at \$1,100	861.60	
		<hr/> 4,844.93

Pathology

F. P. Gay, Prof. of Pathology	\$4,000.00	
G. Y. Rusk, Asst. Prof. of Pathology, from Oct. 1, 1910, to June 30, 1911, at \$1,800 per annum	1,350.00	
A. W. Lee, Instr. in Pathology	1,200.00	
		<hr/> 6,550.00

Philosophy

G. H. Howison, Prof. of Philosophy, Emeritus	\$3,000.00	
G. M. Stratton, Prof. of Psychology	4,000.00	
C. H. Rieber, Assoc. Prof. of Logic	2,700.00	
H. A. Overstreet, Assoc. Prof. of Philosophy, from July 1 to Dec. 31, 1910, at \$2,700 per annum	1,350.00	
Geo. P. Adams, Asst. Prof. of Philosophy	1,800.00	
Warner Brown, Instr. in Psychology	1,400.00	
F. C. Becker, Instr. in Philosophy	1,200.00	
J. S. Jackson, Asst. in Psychology	500.00	
		<hr/> 15,950.00

Physical Culture

W. E. Magee, Prof. of Physical Culture	\$2,000.00	
V. V. Ligda, Asst. Prof. of Physical Culture	1,300.00	
Genevra E. Magee, Asst. in Physical Culture	900.00	
Louise A. Place, Asst. in Physical Culture	720.00	
R. T. Scott, Asst. in Physical Culture	480.00	
		<hr/> 5,400.00

Physics

F. Slate, Prof. of Physics	\$4,000.00	
E. P. Lewis, Prof. of Physics (on leave at two-thirds salary)	2,000.00	
W. J. Raymond, Assoc. Prof. of Physics	2,200.00	
R. S. Minor, Assoc. Prof. of Physics	2,500.00	
E. E. Hall, Assoc. Prof. of Physics	2,400.00	
T. S. Elston, Instr. of Physics	1,400.00	
R. B. Abbott, Instr. in Physics	1,200.00	
W. E. Stamper, Mechanician	1,800.00	
G. O. Liebermann, Helper in Laboratory	900.00	

Carried forward \$18,400.00 \$538,192.09

SALARY ROLL

387

Brought forward \$18,400.00 \$538,192.09

Robt. Lloyd, Lab. Helper, August 29 to September 29 at \$600 per annum, Sept. 29 to June 30, 1911, at \$900 per annum	730.00
H. N. Young, Asst. in Physics	500.00
T. A. Davidson, Asst. in Physics	500.00
G. I. Johnstone, Asst. in Physics	500.00
H. J. Rohde, Asst. in Physics	500.00
J. H. Bardsley, Asst. in Physics	500.00
V. Petrovsky, Asst. in Physics	500.00
L. Rehfuess, Asst. in Physics	500.00
J. C. Corbett, Asst. in Physics	500.00
W. P. Roop, Whiting Fellow	600.00
H. W. Edwards, Whiting Fellow	600.00

24,330.00

Physiology

S. S. Maxwell, Assoc. Prof. of Physiology	\$2,400.00
T. B. Robertson, Assoc. Prof. of Physiological Chemistry....	2,400.00
T. C. Burnett, Instr. in Physiology	1,200.00
A. R. Moore, Assistant	1,200.00
L. R. Beauchamp, Technical Asst. from Aug. 1, 1910, to June 30, 1911, at \$720 per annum.....	600.00
W. F. Allen, Collector and Asst., from July 1 to August 31, at \$1,000 per annum	166.66

7,966.66

Political Science

Bernard Moses, Prof. of History and Political Science, leave of absence on full pay from July 1 to November 1	\$4,000.00
Thomas H. Reed, Asst. Prof. in Political Science, from July 1 to December 31, at \$1,800 per annum, on leave without pay for second half-year	900.00
F. L. Talbert, Teaching Fellow	600.00

5,500.00

Printing Office

J. W. Flinn, Superintendent	2,200.00
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Romanic Languages

Lucien Foulet, Prof. French Language and Literature	\$4,000.00
R. Schevill, Prof. of Spanish	3,000.00
S. A. Chambers, Asst. Prof. of French	1,900.00
J. T. Clark, Asst. Prof. of Romanic Philology	1,900.00
E. P. Dargan, Asst. Prof. of French	2,000.00
G. E. Faucheux, Asst. Prof. of French Literature, on leave for second half-year at two-thirds salary	1,416.66
J. A. Child, Asst. Prof. in Italian	1,600.00
C. H. S. Howard, Instr. in French	1,400.00
Carlos Bransby, Instr. in Spanish	1,400.00
E. B. Lamare, Instr. in French	1,000.00
Alfred Solomon, Instr. in French	1,200.00
Mrs. J. H. Greenleaf, Instr. in French	1,100.00

21,916.60

Carried forward \$600,105.35

Brought forward \$600,105.35

Sanskrit

A. W. Ryder, Asst. Prof. of Sanskrit 1,700.00

Semitic Languages

William Popper, Asst. Prof. of Semitic Languages 2,000.00

Slavic Languages

George R. Noyes, Asst. Prof. of Slavic Languages 2,000.00

University Extension

J. D. Fletcher, Secretary for University Extension (without salary).

Don E. Smith, Lecturer and Acting Director (without salary).

F. J. Teggart, Lecturer (without salary).

B. P. Kurtz, Lecturer (without salary).

Vertebrate Zoology

Joseph Grinnell, Director of the California Museum of Vertebrate Zoology.

Edmund Heller, Curator of Mammals.

Harry S. Swarth, Asst. Curator of Birds.

Walter P. Taylor, Asst. Curator of Mammals.

(Salaries for the above are paid direct from Miss Alexander's provision for the Museum).

Wilmerding School

G. A. Merrill, Director \$2,100.00

Geo. F. Wood, Vice-Prin. and Instr. in Plumbing 2,100.00

R. M. Grant, Instr. in Carpentry 1,500.00

L. H. Werson, Instr. in Bricklaying 1,500.00

J. E. Maybeck, Instr. in Cabinet Making 1,500.00

Frank L. Dodge, Instr. in Electrical Work 1,500.00

Julia M. Edwards, Instr. in English Branches 1,500.00

Gwynn Page Anderson, Instr. in Mathematics 1,200.00

J. McHenry, Instr. in Mechanical and Architectural Drawing 1,500.00

J. C. Christensen, Instr. in Science, salary at \$1,500 per annum (on leave without pay from January 5 to June 30) 766.13

Mary E. Wilson, Instr. in Science at \$1,500 per annum from January 5 to June 30 733.87

Jessie N. Bell, Instr. in Industrial Art 1,200.00

Alice E. Crowe, Office Assistant, from July 1 to September 30, 1910 at \$960 per annum 240.00

Gladys M. Elliott, Office Asst., from September 20 to June 30, at \$600 per annum 466.66

J. E. Lozier, General Shop Assistant 1,200.00

19,006.66

Carried forward \$624,812.01

Brought forward \$624,812.01

Zoology

W. E. Ritter, Prof. of Zoology	\$3,000.00
C. A. Kofoed, Prof. of Zoology	2,700.00
H. B. Torrey, Assoc. Prof. of Zoology	2,400.00
J. A. Long, Instr. in Zoology	1,300.00
J. F. Daniel, Instr. in Zoology	1,300.00
R. G. Sharp, Asst. in Zoology.....	600.00
H. Bates, Asst. in Zoology	600.00
W. H. Davisson, Helper	700.00
Myrtle Johnson, Asst. Zoology, January 1 to June 30, at \$500 per annum	250.00
Elizabeth Heald, Agassiz Research Assistant	600.00
Effie J. Rigden, Agassiz Research Assistant, from July 1 to August 23, at \$1,000 per annum	147.22

13,597.22

SCHOLARSHIPS AND FELLOWSHIPS

Phoebe Hearst	\$2,400.00
State of California	3,500.00
Levi Strauss	3,500.00
Cornelius B. Houghton	150.00
LeConte Memorial	500.00
Goewey	250.00
Pixley	200.00
Paget	150.00
Crystal Harford	125.00
Albert Sydney Johnston	175.00
Martin B. Kellogg	600.00
Lincoln	240.00
Sheffield Sanborn	750.00
Willard D. Thompson	3,000.00
University Fellowships	3,200.00
University Fellowships in Academy of Pacific Coast History, donated by Native Sons of the Golden West	250.00

\$18,990.00

\$657,399.23

SALARY ROLL FOR 1911-12

Salaries are for the Year from July 1, 1911, to June 30, 1912,
unless otherwise stated.

Administration

Benjamin I. Wheeler, President.....	\$12,000.00
Ralph P. Merritt, Comptroller, from December 1, 1911, to June 30, 1912, at \$5,000 per annum.....	2,916.62
V. H. Henderson, Secretary and Land Agent.....	3,600.00
Warren Olney, Jr., Attorney for the Board of Regents.....	3,600.00
James Sutton, Recorder	2,400.00
Lucy Sprague, Dean of Women and Asst. Prof. of English (on leave without pay from October 15, 1911, to January 15, 1912)	1,500.00
Lucy Stebbins, Assistant to Dean of Women.....	1,500.00
H. E. Gibson, Accountant	2,600.00
H. L. Wright, Clerk.....	1,060.00
N. Hovey, Purchasing Agent.....	2,000.00
Farnham P. Griffiths, Secretary to the President, \$2,000, and Lecturer in Law, \$500.....	2,500.00
F. C. Stevens, President's Stenographer.....	1,320.00
May L. Cheney, Appointment Secretary.....	1,500.00
Maud Percival, Clerk in Office of Appointment Secretary from July 1, 1911, to December 31, 1911, at \$780 per annum	390.00
Vera Percival, Clerk in Office of Appointment Secretary from January 1, 1912, to June 30, 1912, at \$900 per annum	450.00
Irving Markwart, Assistant Appointment Secretary from July 1, 1911, to February 29, 1912, at \$600 per annum	400.00
Albert H. Allen, Manager of the University Press.....	1,500.00
E. A. Hugill, Superintendent of Grounds and Buildings....	2,000.00

\$43,236.62

Library

J. C. Rowell, Librarian.....	\$3,000.00
Harold L. Leupp, Associate Librarian.....	3,000.00
H. Ralph Mead, Reference Librarian.....	1,600.00
A. B. Smith, Head of Accessions Department from July 1, 1911, to August 31, 1911, at \$1,600 per annum.....	266.66
S. B. Mitchell, Head of Accessions Department from Sep- tember 1, 1911, to June 30, 1912, at \$1,600 per annum	1,333.30
Carleton B. Joeckel, Assistant Reference Librarian.....	1,500.00
Pauline Gunthorp, Head Cataloguer.....	1,200.00
F. M. Bumstead, Inspector.....	1,200.00
Myrtle Roberts, Librarian's Secretary from August 1, 1911, to June 30, 1912, at \$840 per annum.....	770.00
Ulrich Graff, Senior Assistant	1,300.00
Edith M. Coulter, Senior Assistant.....	1,200.00
Ella K. Walker, Senior Assistant from August 1, 1911, to	

Carried forward \$16,369.96 \$43,236.62

SALARY ROLL

391

Brought forward \$16,369.96 \$43,236.62

June 30, 1912, at \$1,200 per annum.....	1,100.00
Edna L. Goss, Senior Assistant.....	1,000.00
Alice I. Lyser, Senior Assistant.....	1,000.00
Lillian Burt, Senior Assistant.....	950.00
Louise W. Katz, Senior Assistant.....	950.00
Stella Bennett, Senior Assistant.....	900.00
Sarah Oddie, Senior Assistant from September 11, 1911, to June 30, 1912, at \$1,080 per annum.....	867.00
Marie Tollefson, Junior Assistant.....	660.00
W. K. Porter, Junior Assistant.....	600.00
Frances Mecum, Junior Assistant.....	600.00
J. A. Dean, Junior Assistant from August 1 to August 15 at \$720 per annum, and August 15, 1911, to June 30, 1912, at \$900 per annum.....	817.50
Coral Wolfe, Junior Assistant from August 1, 1911, to June 30, 1912, at \$600 per annum.....	550.00
Wm. M. Gwynn, Junior Assistant.....	350.00
T. G. Clark, Messenger.....	900.00
C. M. Jones, Reading-room Attendant	400.00

28,014.46

Agriculture

E. J. Wickson, Professor of Agriculture and Director of Experiment Station	\$4,000.00
E. W. Hilgard, Emeritus Professor of Agriculture.....	2,666.00
Leroy Anderson, Professor of Agricultural Practice and Superintendent of University Farm Schools	3,000.00
M. E. Jaffa, Professor of Nutrition, and in charge of Poultry Station, without salary.....	
C. W. Woodworth, Professor of Economic Entomology.....	2,700.00
R. H. Loughridge, Professor of Agricultural Chemistry Emeritus	1,466.00
G. W. Shaw, Associate Professor of Experimental Agronomy and Agricultural Technology.....	2,700.00
R. E. Smith, Professor of Plant Pathology and Superin- tendent Southern California Pathological Laboratory and Experiment Station	2,800.00
E. W. Major, Associate Professor of Animal Industries (on leave at two-thirds salary).....	1,600.00
G. E. Colby, Assistant Professor of Agricultural Chemistry, in charge of Laboratory of Agricultural Chemistry.....	2,000.00
H. J. Quayle, Assistant Professor of Entomology	2,000.00
W. T. Clarke, Associate Professor of Horticulture and Superintendent of University Extension in Agriculture....	2,400.00
John S. Burd, Associate Professor of Agricultural Chemistry, in charge of Fertilizer Control.....	2,400.00
C. M. Haring, Assistant Professor of Veterinary Science (on leave for second half year at two-thirds salary).....	1,833.30
E. B. Babcock, Assistant Professor of Agricultural Education	2,000.00
F. T. Bioletti, Associate Professor of Viticulture.....	2,600.00
J. H. Norton, Assistant Professor of Agricultural Chemistry from July 1, 1911, to January 31, 1912, at \$2,000 per annum	1,166.62

Carried forward \$37,331.92 \$71,251.08

<i>Brought forward</i>	\$37,331.92	\$71,251.08
Wm. B. Herms, Assistant Professor of Entomology.....	1,800.00	
H. A. Ruehe, Instructor in Dairy Husbandry.....	1,200.00	
J. B. Neff, Conductor of Farmers' Institutes.....	1,000.00	
E. J. Lea, Assistant Professor of Agricultural Chemistry.....	1,800.00	
R. E. Mansell, Instructor in Horticulture, in charge of Agricultural Grounds from July 1, 1911, to August 31, 1911, at \$1,500 per annum.....	250.00	
C. H. McCharles, Instructor in Agricultural Chemistry.....	1,200.00	
E. H. Hagemann, Instructor in Dairying.....	1,600.00	
T. F. Hunt, Plant Pathologist.....	1,500.00	
E. H. Smith, Instructor in Plant Pathology.....	1,200.00	
C. O. Smith, Instructor in Plant Pathology.....	1,300.00	
A. J. Gaumnitz, Assistant Agronomist.....	1,500.00	
P. L. McCreary, Chemist in Fertilizer Control.....	1,600.00	
M. E. Stover, Assistant in Agricultural Laboratory.....	1,100.00	
P. L. Hibbard, Instructor in Agricultural Chemistry.....	1,400.00	
F. E. Johnson, Instructor in Soils from July 1, 1911, to February 12, 1912, at \$1,200 per annum.....	739.97	
M. E. Holter, Instructor in Soils from February 13, 1912, to June 30, 1912, at \$1,200 per annum.....	461.03	
G. A. Coleman, Curator in Entomological Museum.....	900.00	
N. D. Ingham, Silviculturist at Santa Monica from July 1, 1911, to March 31, 1912, at \$1,200 per annum.....	900.00	
D. L. Bunnell, Secretary to Director.....	1,100.00	
Fred L. Yeaw, Plant Pathologist from July 1, 1911, to August 31, 1911, at \$1,500 per annum.....	250.00	
A. M. Cleghorn, Principal of University Farm School and Instructor in English and History.....	1,800.00	
Fred H. Bolster, Instructor in Botany and Horticulture.....	1,400.00	
Wm. T. Horne, Assistant Professor of Plant Pathology.....	2,000.00	
J. E. Coit, Associate Professor of Pomology.....	2,400.00	
B. A. Madson, Instructor in Experimental Agronomy.....	1,200.00	
C. B. Lipman, Assistant Professor of Soils.....	2,000.00	
L. Bonnet, Instructor in Viticulture.....	1,100.00	
R. M. Roberts, Manager of University Farm.....	1,800.00	
H. Phillips, Instructor in Animal Industries (Sheep and Swine)	1,600.00	
B. S. Brown, Instructor in Horticulture, University Farm..	1,400.00	
L. M. Davis, Instructor in Dairy Industry, University Farm	1,500.00	
S. S. Rogers, Plant Pathologist.....	1,400.00	
W. E. Packard, Experimental Agronomist, in charge of Imperial Valley Station	1,800.00	
Cyril A. Stebbins, Instructor Agricultural Education.....	1,300.00	
E. E. Thomas, Assistant Chemist in Southern California Laboratory	1,200.00	
J. I. Thompson, Instructor in Animal Industry.....	1,500.00	
C. M. Titus, Instructor in Mathematics and Surveying at University Farm	1,500.00	
F. C. H. Flossfeder, Instructor in Viticulture.....	1,300.00	
John C. Bridwell, Instructor in Entomology.....	1,500.00	
A. B. Shaw, Assistant in Entomology.....	600.00	
<i>Carried forward</i>	\$90,532.92	\$71,251.08

SALARY ROLL

393

<i>Brought forward</i>	\$90,532.92	\$71,251.08
W. G. Hummel, Instructor in Agricultural Education.....	1,500.00	
R. C. Ingram, Instructor in Shop Work.....	1,300.00	
S. H. Beckett, Instructor in Irrigation.....	720.00	
S. D. Wilkins, Instructor in Poultry Husbandry from July 1, 1911, to October 31, 1911, at \$1,200 per annum.....	400.00	
G. P. Gray, Chemist in Insecticides.....	1,200.00	
W. B. Boys, Assistant Cerealist from November 1, 1911, to June 30, 1912, at \$1,000 per annum.....	666.64	
H. D. Young, Chemist at Whittier.....	1,500.00	
A. R. Tylor, Assistant Plant Pathologist at Whittier.....	1,200.00	
E. W. Rust, Assistant Entomologist at Whittier from July 1, 1911, to October 31, 1911, at \$1,200 per annum.....	400.00	
L. T. Sharp, Assistant in Soils.....	1,200.00	
W. V. Cruess, Assistant in Zymology.....	1,200.00	
Katherine Jones, Assistant in Agricultural Education.....	720.00	
C. L. Roadhouse, Instructor in Veterinary Science and Manager of the University Dairy.....	1,800.00	
F. M. Hayes, Instructor in Veterinary Science.....	1,800.00	
J. F. Mitchell, Assistant in Hog Cholera Immunization.....	1,200.00	
Earl Morris, Field Assistant in Santa Clara County in a study of the Life History of the California Peach Root Borer and Treatment thereof (without salary).....		
W. H. Volck, Field Assistant in Monterey County in the Control of Potato Worm, and in Santa Cruz County in special study of control measures for the wooly aphis (without salary)		
		107,339.56

Anatomy

R. C. Moody, Assistant Professor of Anatomy (on leave first half-year at two-thirds salary).....	\$1,666.62	
A. M. dal Piaz, Instructor in Anatomy	1,300.00	
Edward F. Miller, Technical Assistant in Anatomy.....	1,200.00	
R. W. Harvey, Instructor in Anatomy.....	1,400.00	
Ruby L. Cunningham, Assistant in Anatomy.....	600.00	
		6,166.62

Anthropology

A. L. Kroeber, Associate Professor and Secretary of De- partment of Anthropology and Curator of Anthropological Museum	\$2,400.00	
T. T. Waterman, Instructor in Anthropology and Assistant Curator	1,200.00	
N. C. Nelson, Instructor and Assistant Curator.....	1,200.00	
E. D. Thayer, Jr., Assistant Secretary from July 1, 1911, to October 31, 1911, at \$780 per annum.....	260.00	
Mabel J. Holum, Assistant Secretary from January 1, 1912, to June 30, 1912, at \$720 per annum.....	360.00	
Arthur Poyser, Preparator.....	840.00	
Arthur Warburton, Preparator.....	960.00	
		7,220.00
<i>Carried forward</i>		\$191,977.26

Brought forward \$191,977.26

Architecture

John Galen Howard, Professor of Architecture.....	\$4,000.00
W. C. Hays, Assistant Professor of Architecture (part time)	1,200.00
H. W. Seawell, Instructor in Water-coloring and Pen and Ink Drawing	800.00
M. Earl Cummings, Instructor in Modeling.....	600.00
Warren Perry, Instructor	1,000.00
Bessy Sprague, Librarian and Clerk.....	840.00

8,440.00

Astronomy

A. O. Leuschner, Professor of Astronomy and Director of Students' Observatory	\$3,300.00
R. T. Crawford, Associate Professor of Practical Astronomy (leave of absence on two-thirds salary).....	1,600.00
D. W. Morehouse, Instructor in Astronomy.....	1,200.00
S. Einarsson, Instructor in Practical Astronomy.....	1,100.00
W. F. Meyer, Instructor in Astronomy.....	1,100.00
Estella A. Glancy, Watson Assistant.....	1,200.00
Sophia Levy, Watson Assistant.....	900.00

10,400.00

Botany

W. A. Setchell, Professor of Botany.....	\$3,600.00
W. L. Jepson, Associate Professor of Dendrology.....	2,200.00
H. M. Hall, Assistant Professor of Economic Botany and Assistant Botanist to Agricultural Experiment Station....	1,900.00
A. R. Moore, Assistant Professor of Physiology.....	1,600.00
H. Goodspeed, Assistant in Botany.....	900.00
H. P. Chandler, Assistant in Botany.....	600.00
C. W. Shuquist, Janitor and Mech.....	780.00
C. A. Purpus, Botanical Collector (without salary).....	
T. S. Brandegee, Honorary Curator in the Herbarium (without salary)	

11,580.00

Celtic

J. J. O'Hegarty, Reader in Irish.....	\$600.00
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600.00

Chemistry

E. O'Neill Professor of Inorganic Chemistry.....	\$3,600.00
M. S. Sherrill, Assistant Professor of Theoretical Chemistry from January 1, 1912, to June 30, 1912, at \$3,000 per annum	1,500.00
W. C. Blasdale, Associate Professor of Chemistry.....	2,200.00
W. C. Morgan, Assistant Professor of Chemistry.....	2,000.00
H. C. Biddle, Assistant Professor of Chemistry.....	2,000.00
Edward Booth, Assistant Professor of Chemistry.....	1,600.00
C. E. Burke, Instructor in Chemistry.....	1,000.00
Chas. Gilman, Storekeeper.....	1,100.00

Carried forward \$15,000.00 \$222,997.26

SALARY ROLL

395

<i>Brought forward</i>	\$15,000.00	\$222,997.26
Mabelle E. Jewell, Clerk from August 1, 1911, to June 30, 1912, at \$900 per annum	825.00	
J. A. Madsen, Laboratory Mechanic (leave of absence from June 15 to June 30, 1912, without salary).....	1,054.09	
W. K. Gaylord, Assistant in Chemistry from July 1, 1911, to April 19, 1912, at \$900 per annum.....	722.50	
O. L. Brauer, Assistant in Chemistry.....	900.00	
E. C. Lane, Assistant in Chemistry from March 15, 1912, to May 15, 1912, at \$900 per annum.....	150.00	
J. T. Winkler, Assistant in Chemistry.....	600.00	
Wm. Meyer, Assistant in Chemistry.....	600.00	
E. W. Gruer, Assistant in Chemistry.....	500.00	
E. S. Alderman, Assistant in Chemistry.....	400.00	
G. B. Moody, Assistant in Chemistry.....	400.00	
A. M. Weston, Assistant in Chemistry.....	400.00	
W. H. Reese, Lecturer in Technical Chemistry from January 1 to June 30, 1912, at \$500 per annum.....	250.00	
B. Speed, Lecturer in Technical Chemistry from January 1 to June 30, 1912, at \$500 per annum.....	250.00	
Mrs. Sarah F. L. Rising, Carnegie Foundation allowance paid to Mrs. Rising as widow of the late W. B. Rising....	1,035.00	
		23,086.59

Civil Engineering

Chas. Derleth, Jr., Professor of Civil Engineering.....	\$4,000.00	
Frank Soule, Professor Emeritus of Civil Engineering, total salary \$2,200, of which \$2,045 is paid by Carnegie Foundation	2,200.00	
Chas. Gilman Hyde, Professor of Sanitary Engineering.....	3,300.00	
T. B. Sears, Associate Professor of Railroad Engineering from July 1, 1911, to January 31, 1912, at \$2,500 per annum	1,458.31	
H. J. Kesner, Assistant Professor in Civil Engineering.....	1,500.00	
A. C. Alvarez, Instructor in Civil Engineering.....	1,300.00	
A. J. Eddy, Instructor in Civil Engineering.....	1,100.00	
H. S. Griswold, Instructor in Civil Engineering.....	1,300.00	
G. I. Gay, Instructor in Civil Engineering.....	1,200.00	
Ralph A. White, Instructor in Civil Engineering from January 22, 1912, to June 30, 1912, at \$1,000 per annum	444.42	
Val. Arntzen, Expert Mechanic in Civil Engineering Laboratory	1,800.00	
Nettie Meek, Clerk.....	1,000.00	
H. H. Harder, Assistant in Testing Laboratory from September 1, 1911, to June 30, 1912, at \$900 per annum.....	750.00	
J. R. Shields, Assistant in Testing Laboratory from July 1 to August 31, at \$900 per annum.....	150.00	
		21,502.73

Dental Department

Dr. J. G. Sharp, Professor of the Principles and Practice of Surgery, and Dean.....	\$1,000.00	
Dr. G. S. Millberry, Superintendent in the Dental Department and Professor of Chemistry and Metallurgy.....	3,000.00	
<i>Carried forward</i>	\$4,000.00	\$267,586.58

<i>Brought forward</i>	\$4,000.00	\$267,586.58
Dr. H. B. Carey, Instructor in Anatomy and Histology, Materia Medica and Therapeutics.....	600.00	
Dr. Elmer E. Evans, Assistant Instructor.....	200.00	
Dr. W. F. Sharp, Professor of Prosthetic Dentistry.....	500.00	
Dr. J. D. Hodgen, Professor of Operative Dentistry.....	500.00	
Dr. J. B. Tufts, Professor of Dental Pathology and Therapeutics and Orthodontia	500.00	
Dr. G. L. Bean, Professor of Dental Porcelain.....	500.00	
Dr. H. T. Moore, Lecturer on Surgery.....	100.00	
Dr. S. W. Hussey, Instructor in Extracting.....	100.00	
Dr. Louis Graham, Assistant in Operative Dentistry.....	100.00	
Dr. R. A. Day, Instructor in Orthodontia Technic.....	100.00	
Dr. A. H. Suggett, Lecturer and Clinical Instructor in Orthodontia	150.00	
Dr. S. C. Davis, Assistant in Dental Porcelain (without salary).		
Dr. F. B. Kenward, Assistant in Dental Porcelain.....	100.00	
Dr. J. E. Gurley, Instructor in Chemistry.....	150.00	
Dr. M. T. Rhodes, Demonstrator in Clinical Dentistry.....	100.00	
Dr. O. P. Roller, Special Instructor in Dental Porcelain (without salary).		
Mr. Louis Bartlett, Lecturer in Dental Jurisprudence.....	50.00	
Dr. R. E. Keys, Librarian.....	300.00	
Dr. Malcolm Goddard, Instructor in Comparative Anatomy....	100.00	
Stanley L. Dod, Reader in Dental Pathology and Therapeutics	100.00	
H. E. Rudee, Assistant Demonstrator in Clinical Dentistry....	100.00	
F. E. Hart, Instructor in Dental Technics from August 22, 1911, to June 30, 1912, at \$3,000 per annum.....	2,583.33	
		10,933.33

NOTE—Dr. S. S. Maxwell receives \$350 as Associate Professor in Physiology; this amount is added to his salary appearing under "Physiology."

A. W. Lee receives \$500 as Instructor in Pathology; this amount is added to his salary appearing under "Pathology."

Drawing

H. Kower, Associate Professor of Drawing.....	\$2,700.00	
W. J. Wythe, Assistant Professor of Drawing.....	1,700.00	
C. Chapel Judson, Assistant Professor of Drawing.....	1,700.00	
H. B. Monges, Instructor in Drawing.....	1,300.00	
K. E. Neuhaus, Instructor in Drawing.....	1,000.00	
		8,400.00

Economics

A. C. Miller, Flood Professor of Political Economy and Commerce (leave for first half-year on two-thirds salary)	\$3,333.30	
C. C. Plehn, Professor of Finance (on the Flood Foundation)	3,300.00	
H. R. Hatfield, Professor of Accounting (on the Flood Foundation), and Secretary of the College of Commerce (on leave for first half-year at two-thirds salary at \$3,000; on return salary to be at the rate of \$3,300 in addition to secretaryship of \$300).....	2,800.00	
<i>Carried forward</i>	\$9,433.30	\$286,919.91

SALARY ROLL

397

Brought forward \$9,433.30 \$286,919.91

W. C. Mitchell, Professor of Political Economy (on the Flood Foundation)	3,300.00
A. W. Whitney, Associate Professor Insurance and Mathematics (one-third chargeable to Mathematics).....	2,400.00
Lincoln Hutchinson, Assistant Professor of Commerce (on the Flood Foundation), and Advisor (\$500 chargeable to Administration)	2,700.00
Jessica B. Peixotto, Assistant Professor of Sociology.....	2,000.00
Stuart Daggett, Assistant Professor of Railway Economics (on the Flood Foundation) and Secretary of College of Commerce for first half-year at \$300 per annum.....	2,150.00
John G. Brooks, Lecturer for first half-year.....	2,000.00
W. C. Fankhauser, Flood Fellow in Commerce.....	400.00
Lillian R. Matthews, Flood Fellow in Commerce.....	400.00
S. Blum, Assistant in Economics.....	800.00
L. Giamboni, Assistant in Economics from July 1, 1911, to January 31, 1912, at \$600 per annum.....	350.00
Lucy Stebbins, Lecturer in Charities, without additional salary (salary included in Administration).	
F. G. Athearn, Lecturer in Railway Economics (without salary).	

25,933.30

Education

A. F. Lange, Professor of the Theory and Practice of Education, \$4,000, and Dean of the Faculties \$500.....	\$4,500.00
E. E. Brown, Hon. Professor of Education (without salary).	
C. E. Rugh, Associate Professor of Education.....	2,700.00
W. S. Thomas, Assistant Professor of Education and Examiner of Schools	2,200.00
H. G. Lull, Acting Assistant Professor of Education.....	1,200.00
R. C. Boone, Lecturer in Education.....	3,000.00
John Swett, Hon. Lecturer (without salary).	
W. L. Schurz, Assistant in Education.....	600.00

14,200.00

Electric Light and Power

Ira E. Currier, Engineer.....	\$1,200.00
W. H. Lozier, Electrician.....	1,200.00
A. D. White, Storekeeper and Machinist.....	1,200.00

3,600.00

English

C. M. Gayley, Professor of the English Language and Literature	\$4,000.00
C. B. Bradley, Professor of Rhetoric, Emeritus (\$1,750 of this amount is paid by the Carnegie Foundation).....	1,800.00
C. W. Wells, Associate Professor of English Composition.....	2,700.00
Wm. D. Armes, Associate Professor of American Literature \$2,000, and Chairman of Musical and Dramatic Committee \$500 (this last item chargeable to Administration Salaries)	2,500.00

Carried forward \$11,000.00 \$330,653.21

<i>Brought forward</i>	\$11,000.00	\$330,653.21
M. C. Flaherty, Associate Professor of Forensics.....	2,400.00	
W. M. Hart, Associate Professor of English Philology.....	2,400.00	
T. F. Sanford, Assistant Professor of English Literature....	1,800.00	
B. P. Kurtz, Assistant Professor of English.....	1,900.00	
G. A. Smithson, Instructor in English Philology.....	1,300.00	
C. D. von Neumayer, Instructor in Public Speaking (leave of absence on two-thirds salary).....	1,000.00	
F. T. Blanchard, Instructor in English.....	1,200.00	
H. E. Cory, Instructor in English.....	1,200.00	
G. R. MacMinn, Instructor in English.....	1,100.00	
L. Bacon, Instructor in English.....	1,100.00	
H. L. Bruce, Teaching Fellow in English.....	600.00	
S. B. Hustvedt, Teaching Fellow in English.....	600.00	
		27,600.00

Geography

George Davidson, Emeritus Professor of Geography from July 1, 1911, to December 31, 1911, at \$750 per annum	\$ 350.00	
R. S. Holway, Assistant Professor of Physical Geography....	2,000.00	
W. G. Reed, Instructor in Climatology.....	1,000.00	
		3,350.00

Geology and Mineralogy

A. C. Lawson, Professor of Mineralogy and Geology (on leave first half-year at two-thirds salary).....	\$3,333.30	
G. D. Loudcrback, Associate Professor of Geology.....	2,200.00	
A. S. Eakle, Assistant Professor of Mineralogy.....	2,000.00	
H. O. Wood, Instructor in Mineralogy and Geology.....	1,400.00	
C. L. Baker, Instructor in Mineralogy and Geology from July 1, 1911, to December 31, 1911, at \$1,200 per annum	600.00	
E. F. Davis, Assistant in Mineralogy and Geology.....	600.00	
R. G. Davies, Assistant in Mineralogy and Geology.....	600.00	
R. M. Rowe, Assistant in Mineralogy and Geology.....	900.00	
		11,633.30

German

H. K. Schilling, Professor of German Language and Literature	\$4,000.00	
A. Putzker, Emeritus Professor of German Literature (\$1,500 of this is paid by Carnegie Foundation).....	2,000.00	
J. H. Senger, Associate Professor of German.....	2,400.00	
L. J. Demeter, Assistant Professor of German.....	1,800.00	
Clarence Paschall, Assistant Professor of German (leave of absence for year at two-thirds salary).....	1,066.56	
R. Pinger, Assistant Professor of German.....	1,600.00	
Paul Boehncke, Assistant in German.....	900.00	
F. A. Wyneken, Assistant in German.....	900.00	
Marie K. Lazarus, Assistant in German from July 1, 1911, to December 31, 1911, at \$500 per annum.....	250.00	
Sophie Wolff, Assistant in German from January 1, 1912, to June 30, 1912, at \$500 per annum.....	250.00	
F. Schraidt, Assistant in German.....	500.00	
F. Schneider, Assistant in German.....	500.00	
		16,166.56

Carried forward \$389,403.07

SALARY ROLL

399

Brought forward \$389,403.07

Greek

E. B. Clapp, Professor of the Greek Language and Literature	\$4,000.00	
Isaac Flagg, Professor Emeritus of Greek (salary paid by the Carnegie Foundation)	1,600.00	
J. T. Allen, Associate Professor of Greek	2,400.00	
I. M. Linforth, Assistant Professor of Greek	1,900.00	
		9,900.00

History

H. Morse Stephens, Professor of History	\$5,000.00	
T. R. Bacon, Professor of Modern European History	3,000.00	
H. E. Bolton, Professor of American History	4,000.00	
F. J. Teggart, Associate Professor of Pacific Coast History (without salary, and Honorary Curator of the Bancroft Library).		
L. A. Paetow, Assistant Professor of English History	2,000.00	
R. F. Scholz, Assistant Professor of Ancient History	1,900.00	
J. N. Bowman, Assistant Professor of Mediaeval History	2,000.00	
E. I. McCormac, Assistant Professor of American History	1,700.00	
Don E. Smith, Assistant Professor of History and Geography, and Secretary of Department of History (on leave for second half-year at two-thirds salary)	1,583.22	
G. C. Davidson, Teaching Fellow in History	600.00	
C. E. Chapman, Teaching Fellow in History	600.00	
J. G. Iliff, Teaching Fellow in History	600.00	
J. Van Nostrand, Teaching Fellow in History	600.00	
		23,583.22

Hygiene

G. F. Reinhardt, Professor of Hygiene and University Physician	\$4,000.00	
C. R. Greenleaf, Honorary Professor of Military and Public Hygiene (without salary).		
E. S. Bancroft, Lecturer on Hygiene and Medical Examiner (on leave for one year without pay).		
Romilda Paroni, Lecturer on Hygiene and Medical Examiner	1,500.00	
E. B. Hoag, Lecturer in Public Hygiene	1,200.00	
W. A. Sawyer, Director of State Hygienic Laboratory (without salary).		
Eugene S. Kilgore, Medical Examiner	1,200.00	
Ethel Sherman, Superintendent of Infirmary	1,200.00	
John N. Force, Assistant Medical Examiner	1,000.00	
		10,100.00

Irrigation

B. A. Etcheverry, Assoc. Professor of Irrigation Engineering	\$2,400.00	
Albert E. Chandler, Assistant Professor of the Institutions of Irrigation	1,700.00	
		4,100.00

Carried forward \$4,100.00 \$437,086.29

Brought forward \$4,100.00 \$437,086.29

Jurisprudence

Wm. Carey Jones, Professor of Jurisprudence.....	\$4,000.00
Curtis H. Lindley, Honorary Professor of Law of Mines and Water (without pay).	
Orrin K. McMurray, Professor of Law.....	3,000.00
G. H. Boke, Professor of Law.....	2,700.00
A. M. Kidd, Assistant Professor of Law.....	2,000.00
C. G. White, Lecturer in Law.....	500.00
Max Thelen, Lecturer in Law.....	500.00
Lester H. Jacobs, Lecturer in Law on Insurance.....	1,000.00
A. G. Tasheira, Lecturer in Law (leave of absence without salary for second half-year).....	175.00
J. P. Chamberlain, Lecturer in Law (on leave without salary).	
Maurice E. Harrison, Lecturer Commercial Law.....	350.00
Warren Olney, Jr., Lecturer in Law (on leave without salary).	
W. E. Colby, Lecturer on Law of Mines.....	500.00
Matthew C. Lynch, Instructor in Law.....	1,500.00
Rosamond Parma, Librarian and Clerk.....	900.00
Allan P. Matthew, Lecturer on Law of Interstate Trans- portation (without salary).	

17,125.00

NOTE.—Farnham P. Griffiths, Lecturer in Law, \$500, ap-
pears in Administrative Salaries.

Latin

W. A. Merrill, Professor of the Latin Language and Litera- ture	\$4,000.00
L. J. Richardson, Associate Professor of Latin.....	2,400.00
Clifton Price, Assistant Professor of Latin.....	1,800.00
H. C. Nutting, Assistant Professor of Latin.....	2,000.00
O. M. Washburn, Assistant Professor of Archaeology.....	1,900.00
Torsten Petersson, Instructor in Latin.....	1,500.00
M. E. Deutsch, Instructor in Latin.....	1,300.00
S. B. Clark, Instructor in Latin.....	1,500.00

16,400.00

Lick Observatory

W. W. Campbell, Director and Astronomer (on leave to September 29, 1911).....	\$5,000.00
R. H. Tucker, Astronomer (returns after being on leave for three years; leave extended to November 1, 1911, without pay. Salary is at the rate of \$2,400 per annum)	1,600.00
Heber D. Curtis, Astronomer.....	2,400.00
R. G. Aitken, Astronomer (Acting Director until Septem- ber 25, 1911)	2,700.00
W. H. Wright, Astronomer.....	2,400.00
R. E. Wilson, Assistant.....	1,200.00

Carried forward \$15,300.00 \$470,611.29

SALARY ROLL

401

<i>Brought forward</i>	\$15,800.00	\$470,611.29
R. S. Sheppard, Assistant.....	1,000.00	
Keivin Burns, Martin Kellogg Fellow for the period, August 15, 1911, to August 15, 1912; payable in two installments, August 1, 1911, and February 1, 1912.....	1,200.00	
Paul W. Merrill, Fellow.....	600.00	
R. Young, Fellow.....	600.00	
Carl C. Kiess, Fellow.....	600.00	
Ruth Standen, Secretary	1,000.00	
J. E. Hoover, Carpenter	1,380.00	
H. Bachman, Instrument-maker	1,350.00	
M. N. Waterhouse, Janitor from July 1, 1911, to March 31, 1912, at \$720 per annum.....	540.00	
David Westwater, Janitor from April 9, 1912, to June 30, 1912, at \$720 per annum.....	164.00	
H. Graun, Engineer	960.00	
Frank Knobloch, Laborer	690.00	

D. O. Mills Fund

J. H. Moore (Chile), Acting Astronomer in charge of the D. O. Mills Expedition.....	2,750.00
Roscoe F. Sanford (Chile), Assistant.....	1,800.00
Mrs. J. H. Moore, Assistant.....	1,050.00

Carnegie Fund

Miss A. M. Hobe, Assistant (on leave without salary from July 1, 1911, to August 31, 1911).....	875.00	
		31,859.00

Mathematics

M. W. Haskell, Professor of Mathematics.....	\$3,600.00	
Geo. C. Edwards, Professor of Mathematics.....	3,000.00	
C. A. Noble, Associate Professor of Mathematics and Assistant Examiner (on leave at two-thirds salary for second half-year. Salary increased to \$2,200).....	1,833.30	
D. N. Lehmer, Associate Professor of Mathematics (on leave first half-year at two-thirds salary).....	2,000.00	
F. M. Putnam, Assistant Professor of Mathematics.....	1,900.00	
J. H. McDonald, Assistant Professor of Mathematics.....	1,700.00	
Chas. Kuschke, Instructor in Mathematics.....	1,200.00	
B. A. Bernstein, Instructor in Mathematics.....	1,200.00	
B. M. Woods, Instructor in Mathematics.....	1,100.00	
Frank Irwin, Instructor in Mathematics.....	1,400.00	
P. Buck, Instructor in Mathematics.....	1,400.00	
Adelaide Smith, Teaching Fellow in Mathematics.....	600.00	
A. R. Williams, Teaching Fellow in Mathematics.....	600.00	
I. N. Wright, Teaching Fellow in Mathematics.....	600.00	
Mrs. Martha S. D. Stringham, Carnegie Foundation allowance as widow of the late Prof. Irving C. Stringham....	960.00	
		23,093.30

NOTE.—A. W. Whitney, Associate Professor of Mathematics, appears under Department of Economics.

<i>Carried forward</i>	\$525,563.59
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Brought forward \$525,563.59

Mechanics

C. L. Cory, John W. Mackay, Jr., Professor of Electrical Engineering and Director of Electric Light and Power Plant	\$4,000.00
H. W. Reynolds, Associate Professor Mechanical Engineering (on leave at two-thirds pay).....	1,400.00
Robert Sibley, Associate Professor Mechanical Engineering	2,100.00
J. N. LeConte, Associate Professor of Mechanical Engineering	2,200.00
G. C. Noble, Assistant Professor of Electrical Engineering from July 1, 1911, to September 30, 1911, at \$1,800 per annum	450.00
H. F. Fischer, Assistant Professor of Electrical Engineering from October 1, 1911, to June 30, 1912, at \$1,500 per annum	1,125.00
C. F. Gilcrest, Instructor in Electrical Engineering.....	1,300.00
A. B. Domonoske, Instructor in Mechanical Engineering.....	1,000.00
B. D. Moses, Assistant in Mechanical Engineering.....	900.00
W. C. Fox, Clerk.....	1,000.00
G. E. Cox, Assistant in Mechanics and Foreman in Wood-work	1,500.00
James George, Assistant in Mechanics and Foreman in Ironwork	1,350.00
F. E. Pernot, Mackay Fellow.....	600.00
T. A. Davidson, Mackay Fellow.....	600.00

19,525.00

Medicine

Dr. A. A. D'Ancona, Dean from July 1, 1911, to January 8, 1912, at \$2,400 per annum (Acting Dean for balance of year without salary)	\$1,253.38
Dr. W. Jarvis Barlow, Dean of the Los Angeles Department (without salary).	

1,253.38

Military Science and Tactics

E. M. Lewis, Professor of Military Science, etc.	800.00
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Mining

S. B. Christy, Professor of Mining and Metallurgy.....	\$4,000.00
E. B. Durham, Associate Professor of Mining.....	2,400.00
E. A. Hersam, Associate Professor of Metallurgy.....	2,400.00
W. S. Morley, Assistant Professor of Metallurgy.....	2,000.00
George Spencer, Mechanician.....	1,200.00
E. P. Willoughby, Helper.....	1,000.00
W. A. McKee, Clerk for July and August at \$900 per annum	150.00
N. Wilkie, Clerk, from September 1 to June 30, at \$900 per annum	750.00
J. L. Talbot, Storekeeper and Helper.....	1,000.00
H. N. Herrick, Assistant in Mining and Mechanical Draughtsman	1,400.00

16,300.00

Carried forward \$563,441.59

SALARY ROLL

403

Brought forward \$563,441.97

Music

J. F. Wolle, Professor of Music (on leave at two-thirds salary)	\$2,000.00	
Paul Steindorff, Choragus.....	1,000.00	
		3,000.00

Oriental Languages

John Fryer, Agassiz Professor of Oriental Languages and Literatures	\$4,000.00	
Y. S. Kuno, Instructor in Japanese.....	1,000.00	
E. James, Assistant in Chinese.....	720.00	
		5,720.00

Palaeontology

John C. Merriam, Associate Professor of Palaeontology and Historical Geology	\$3,000.00	
B. L. Clark, Instructor in Palaeontology.....	1,200.00	
T. Guintyllo, Assistant in Palaeontology.....	1,100.00	
		5,300.00

Pathology and Bacteriology

A. P. Gay, Professor of Pathology.....	\$4,000.00	
T. G. Fitzgerald, Associate Professor of Bacteriology.....	2,500.00	
C. Hall, Assistant in Bacteriology.....	900.00	
B. Y. Rusk, Assistant Professor of Pathology.....	2,000.00	
A. W. Lee, Instructor in Pathology (\$500 of this salary is chargeable against Dental Department as Instructor in Pathology in that Department).....	1,700.00	
		11,100.00

Philosophy

A. H. Howison, Professor of Philosophy Emeritus (\$2,875 of this salary is paid by Carnegie Foundation).....	\$3,000.00	
M. Stratton, Professor of Psychology.....	4,000.00	
H. Rieber, Professor of Logic \$3,000, and Dean of the Summer Session \$1,000 (the latter item charged to Summer Session)	4,000.00	
U. Pope, Assistant Professor of Philosophy.....	1,800.00	
Geo. P. Adams, Assistant Professor of Philosophy (on leave without salary).		
I. Lewis, Instructor in Philosophy.....	1,200.00	
Warner Brown, Instructor in Psychology.....	1,500.00	
C. Becker, Instructor in Philosophy.....	1,300.00	
S. Jackson, Assistant in Psychology from July 1, 1911, to December 31, 1911, at \$500 per annum.....	250.00	
Norma Noteware, Assistant in Psychology from January 1, 1912, to June 30, 1912, at \$500 per annum.....	250.00	
		17,300.00
Carried forward		\$605,861.97

PRESIDENT'S BIENNIAL REPORT

Brought forward \$605,861.97

Physical Culture

W. E. Magee, Professor of Physical Culture.....	\$2,200.00
V. V. Ligda, Assistant Professor of Physical Culture.....	1,400.00
Genevra E. Magee, Assistant in Physical Culture.....	1,000.00
Louise A. Place, Assistant in Physical Culture.....	840.00
R. M. Scott, Assistant in Physical Culture from July 1, 1911, to January 31, 1912, at \$480 per annum, and from February 1, 1912, to June 30, 1912, at \$1,000 per annum	696.65

6,136.65

Physics

F. Slate, Professor of Physics.....	\$4,000.00
E. P. Lewis, Professor of Physics.....	3,300.00
W. J. Raymond, Associate Professor of Physics.....	2,400.00
R. S. Minor, Associate Professor of Physics.....	2,500.00
E. E. Hall, Associate Professor of Physics (on leave during first half-year at two-thirds salary).....	2,000.00
T. S. Elston, Instructor of Physics.....	1,600.00
Raymond B. Abbott, Instructor in Physics.....	1,300.00
W. R. Stamper, Mechanician	1,800.00
C. G. Steinitz, Mechanician	1,500.00
G. O. Liebermann, Helper in Laboratory.....	900.00
G. P. Kraus, Laboratory Helper.....	900.00
R. L. Cooke, Assistant in Physics.....	500.00
D. I. Cone, Assistant in Physics.....	500.00
F. C. Czarneckie, Assistant in Physics.....	500.00
G. I. Johnstone, Assistant in Physics from July 1, 1911, to December 31, 1911, at \$500 per annum.....	250.00
W. D. Bannister, Assistant in Physics from January 1, 1912, to June 30, 1912, at \$500 per annum.....	250.00
V. Petrovsky, Assistant in Physics.....	500.00
L. H. Smith, Assistant in Physics.....	500.00
W. S. Wake, Assistant in Physics.....	500.00
C. A. Smith, Assistant in Physics.....	500.00
G. H. Bardsley, Whiting Fellow.....	600.00

26,800.00

Physiology and Physiological Chemistry

S. S. Maxwell, Associate Professor of Physiology (\$2,700 + \$350 charged to Dentistry, as Associate Professor of Physiology in that department).....	\$3,050.00
T. B. Robertson, Associate Professor of Physiological Chemistry	2,700.00
T. C. Burnett, Instructor in Physiology.....	1,300.00
L. R. Beauchamp, Technical Assistant.....	720.00
C. B. Bennett, Assistant in Physiological Chemistry.....	600.00

8,370.00

Carried forward \$647,163.62

SALARY ROLL

405

Brought forward \$647,168.62

Political Science

Bernard Moses, Professor of History and Political Science, Emeritus: (\$2,400 of this is paid by the Carnegie Foundation)	\$2,666.00	
David P. Barrows, Professor of Political Science \$3,600, and Dean of the Graduate School \$300	3,900.00	
Thomas H. Reed, Associate Professor of Government.....	2,200.00	
F. K. Kruger, Teaching Fellow	600.00	
		9,366.00

Printing Office

J. W. Flinn, Superintendent	2,400.00
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Romanic Languages

Lucien Foulet, Professor of the French Language and Literature from July 1, 1911, to January 31, 1912, at \$4,000 per annum	\$2,333.31	
R. Schevill, Professor of Spanish	3,000.00	
F. Wilmsen, Associate Professor of French.....	2,500.00	
S. A. Chambers, Assistant Professor of French (on leave at two-thirds salary)	1,266.66	
J. T. Clark, Assistant Professor of Romanic Philology.....	2,000.00	
G. E. Fauchaux, Assistant Professor of French Literature...	1,800.00	
J. A. Child, Assistant Professor in Italian.....	1,700.00	
Carlos Bransby, Assistant Professor of Spanish.....	1,600.00	
C. H. S. Howard, Instructor in Spanish.....	1,500.00	
E. B. Lamare, Instructor in French.....	1,100.00	
Alfred Solomon, Instructor in French.....	1,300.00	
Mrs. J. H. Greenleaf, Instructor in French.....	1,200.00	
		21,299.97

Sanskrit

A. W. Ryder, Assistant Professor of Sanskrit.....	1,800.00
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Semitic Languages

William Popper, Assistant Professor of Semitic Languages....	\$2,000.00	
Rabbi Martin Meyer, Lecturer in Semitic History and Literature (without salary).		2,000.00

Slavic Languages

George R. Noyes, Associate Professor of Slavic Languages.....	2,200.00
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University Extension

Don E. Smith, Lecturer and Acting Director (without salary).	
F. J. Teggart, Lecturer (without salary).	
B. P. Kurtz, Lecturer (without salary).	

Carried forward \$686,234.59

Brought forward \$686,234.59

Vertebrate Zoology

Joseph Grinnell, Director of the California Museum of Vertebrate Zoology.

Harry S. Swarth, Curator of Birds.

Walter P. Taylor, Assistant Curator of Mammals.

(Salaries for the above are paid direct out of regular appropriation from Miss Alexander.)

Wilmerding School

G. A. Merrill, Director from July 1, 1911, to January 31, 1912, at \$2,100 per annum and from February 1, 1912, to June 30, 1912, at \$1,666.68 per annum.....	\$1,919.45
Geo. F. Wood, Vice-Principal and Instructor in Plumbing....	2,100.00
R. M. Grant, Instructor in Carpentry.....	1,500.00
L. H. Werson, Instructor in Bricklaying.....	1,500.00
J. E. Maybeck, Instructor in Cabinet Making.....	1,500.00
Frank L. Dodge, Instructor in Electrical Work.....	1,500.00
Julia M. Edwards, Instructor in English Branches.....	1,500.00
W. Wirt, Instructor in Mathematics.....	1,500.00
J. McHenry, Instructor in Architectural Drawing.....	1,500.00
J. C. Christensen, Instructor in Science.....	1,500.00
Jessie N. Bell, Instructor in Industrial Art.....	1,350.00
Gladys M. Elliott, Office Assistant	660.00
J. E. Lozier, General Shop Assistant	1,200.00

19,229.45

Zoology

W. E. Ritter, Professor of Zoology.....	\$3,000.00
C. A. Kofoid, Professor of Zoology.....	3,000.00
H. B. Torrey, Associate Professor of Zoology.....	2,500.00
J. F. Daniel, Assistant Professor of Zoology	1,600.00
J. A. Long, Instructor in Zoology.....	1,400.00
Robert G. Sharp, Assistant in Zoology.....	600.00
A. C. Chandler, Assistant in Zoology.....	600.00
C. W. Fender, Assistant in Zoology from July 1, 1911, to December 31, 1911, at \$600 per annum.....	300.00
G. E. Stone, Assistant in Zoology from January 1, 1912, to June 30, 1912, at \$500	250.00
D. Cory, Assistant in Zoology from July 1, 1911, to December 31, 1911, at \$500 per annum and from January 1, 1912, to June 30, 1912, at \$600 per annum.....	550.00
W. H. Davisson, Helper, from July 1, 1911, to August 31, 1911, at \$900 per annum.....	150.00
L. Davisson, Helper, from September 1, 1911, to June 30, 1912, at \$480 per annum	400.00
Elizabeth Heald, Agassiz Research Assistant in Zoology.....	600.00

14,950.00

\$720,414.04

SUMMARY OF INCOME

JULY 1, 1910, TO JUNE 30, 1911

From investments	\$203,382.24		
United States	75,000.00		--
State of California	1,012,558.86		
		\$1,290,941.10	
Students' fees	\$96,724.43		
Dental Department	16,916.81		
Medical Department	9,455.64		
University Hospital	36,222.77		
Los Angeles Medical Department	7,324.30		
Sale of agricultural produce	89,589.31		
Miscellaneous	16,929.15		
Receipts from concerts, etc.	3,714.67		
		276,877.08	\$1,567,818.18
Gifts for current use	\$56,170.99		
Gifts for architectural expenses and for building work	14,968.00		
		71,138.99	1,638,957.17
Gifts for endowments		33,759.50	1,672,716.67
Turning over of funds (as repayment of loans, stu- dents' deposits due to be returned, etc.)		940,679.00	2,613,395.67

SUMMARY OF EXPENDITURES

JULY 1, 1910, TO JUNE 30, 1911

Administration	\$240,202.21		
Library	55,004.81		
Agriculture (excluding building opera- tions, appearing under that head)	291,826.91		
Other departments	514,322.24		
Miscellaneous	13,666.25		
		\$1,115,022.42	
Scholarships and Prizes	\$19,390.00		
Summer Session	26,823.93		
Lick Observatory	43,410.42		
Dental Department	22,089.81		
Medical Department (including Univer- sity Hospital and Los Angeles Medical Department)	79,306.02		
		191,020.18	\$1,306,042.60
Musical and Dramatic	\$1,321.26		
Academy of Pacific Coast History	5,433.96		
		6,755.22	1,312,797.82
Watershed Lands: Purchase of lands in Strawberry Cañon		465.47	1,313,263.29
Carried forward			\$1,313,263.29

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>		\$1,313,263.29
Kearney Estate: Expenditures made from bequest	202.77	1,313,466.06
Building operations	517,201.74	1,830,667.80
Wilmerding Trades School	30,459.49	1,861,127.29
Turning over of funds (as loans, repayment of students' deposits, etc.)	580,260.74	2,441,388.03

INCOME AVAILABLE FOR GENERAL EDUCATIONAL,
ADMINISTRATIVE, AND SCIENTIFIC
PURPOSES IN 1910-11

Total income available for current use:

Investments	\$203,382.24	
United States	75,000.00	
State of California	1,012,558.86	
		\$1,290,941.10
Students' fees	\$96,724.43	
Dental Department	16,916.81	
Medical Department	9,455.64	
University Hospital	36,222.77	
Los Angeles Medical Department	7,324.30	
Miscellaneous	106,518.46	
Receipts from concerts, etc.	3,714.67	
		276,877.08
Gifts for current use		56,170.99
		\$1,623,989.17

Deduct:

Permanent Building Fund moneys	\$177,693.39
Wilmerding School (expenditures)	30,459.49

Income on Endowment added to principal:

Alumni Association Life Membership Fund	215.37
Alumni Hall Fund	515.93
Bennett Prize Fund	32.47
Class of 1886 Loan Fund	276.69
Class of 1895 Loan Fund	12.30
Class of 1903 Loan Fund	53.84
Class of 1905 Fund	27.31
Class of 1908 Fund	14.67
Class of 1911 Loan Fund	1.93
Cole Scholarship Fund	129.38
Cook Prize Fund	17.00
Dental Endowment Fund	279.86
Doe Library Fund	10,359.25
Doe Library Completion Fund	812.80
Grubstake W. Loan Fund	5.15
Hamerslag Loan Fund	373.34
Medal Loan Fund	5.89
Men's Dormitory Fund	22.31

<i>Carried forward</i>	\$221,308.37	\$1,623,989.17
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INCOME AVAILABLE 1910-11

409

Brought forward \$221,308.37 \$1,623,989.17

Prytanean Hospital Fund	41.29
Royer Endowment Fund	222.21
Walton Loan Fund	322.49

Income payable to Class Secretaries:

Class of 1909 Endowment and Loan Fund	63.18
Class of 1910 Endowment	85.91
Class of 1911 Endowment	2.90

Receipts from concerts	3,714.67
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State appropriations:

University Farm	92,277.36
Farmers' Institutes	10,000.00
Students' fees, Summer School of Surveying	3,647.89
Students' fees, Summer School of Surveying Com- missary	4,960.42

336,646.69

Available for current educational, scientific, and ad-
ministrative purposes

1,287,342.48

Deduct also:

Dental Department (expenditures)	\$22,089.81
Medical Department (expenditures, including Univer- sity Hospital and Los Angeles Medical Dept.)	79,306.02
Anthropology Department (expenditures)	9,426.17
Lick Observatory (expenditures)	43,410.42
Sale of Keeler Volume	20.85

State appropriations:

Cereal Investigation	6,000.00
Imperial County Investigation	4,136.85
Plant Diseases, northern	8,578.36
Viticulture	8,420.80
Southern California Pathological Laboratory and equipment	20,581.51

Sales funds:

Agricultural Experiment Station	1.50
University Farm	67,933.92
Cereal produce	1,493.25
Southern California Pathological Laboratory	1,906.82
Viticultural produce	137.00
California Educational Butter Scoring Contest	495.25

273,938.53

Available at Berkeley for general educational, scientific, and adminis-
trative purposes

\$1,013,403.95

INCOME

JULY 1, 1910, TO JUNE 30, 1911

Income on Investments:

Interest on mortgage and collateral loans	\$116,479.39
Interest on loans to students from endowed loan funds	232.93

\$116,712.32

Interest on bonds:

State bonds (from the State)	\$45,060.00
Diverted funds: from the State (see act approved March 3, 1893, Stats. 1893:75, and also amend- ment Stats. 1899:93)	4,785.00
Bear Gulch Water Company (three coupons due Jan- uary, 1909, July, 1909, and January, 1910)	12,300.00
Bear Gulch Water Company (two coupons accrued, due January, 1911, and July, 1911)	8,200.00
Oakland Traction Consolidated	750.00
Pacific Gas and Electric Company	100.00
Sacramento Gas and Electric Company	50.00
Southern Pacific Railroad, 1st Refunding 4s	1,320.00
Tonopah United Water Co.	600.00

73,165.00

Dividends on stocks:

Bank of California	\$775.00
Fireman's Fund Insurance Co.	1,200.00
Kennedy Mining and Milling Co.	3,180.00
Mackay Companies, preferred	2,816.00
San Francisco National Bank	300.00
University Land Co.	150.00
Weinstock-Lubin Real Estate Co., preferred	325.00

8,746.00

Rents:

University Cottages and Palmer House (after deduc- tion of structural and other repairs), net	\$1,109.69
Congressional Land: S. B. Sumner	20.00
Watershed Lands: (in Strawberry Cañon)	
Such Ranch	425.00
Seaman Cottage	50.00
House on Lot 5, University Heights	12.00
2642 Sylvan way, Berkeley	610.00
1615 Sixth street, West Berkeley	61.33
Broadway Terrace lots, Oakland	14.44
Potrero avenue lots, San Francisco	88.00
Wilmerding School vacant block and shops \$2,200.00	
Less loss on compromise of rent and note given for rent	1,187.50
	<u>1,012.50</u>
Flood lands, Menlo Park (F. C. Sloan)	1,132.26
Lick Observatory lands (R. F. Morrow)	80.00
Thompson lot on Dearborn street, Chicago	3,000.00

Carried forward	\$7,615.22	<u>\$198,623.32</u>
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INCOME

411

<i>Brought forward</i>	\$7,615.22	\$198,623.32
First street building, San Francisco, leased to Blake, Moffitt & Towne: rent for May and June, 1911	\$1,800.00	
Less commission on lease	916.04	
	<u>883.96</u>	
		8,499.18
Interest at 2 per cent per annum on daily balances in hands of Treas- urer		<u>2,209.77</u>
		\$209,332.27
Less proportion of income in Endowment Pool due to Mrs. Jane K. Sather	\$5,862.34	
Less proportion of income in Endowment Pool due to Madame Thérèse F. Colin	87.69	
	<u></u>	5,950.03
		<u>\$203,382.24</u>
United States:		
Morrill College Aid Fund	\$45,000.00	
Agricultural Experiment Station (Hatch Fund)	15,000.00	
Adams Fund	15,000.00	
	<u></u>	75,000.00
State of California:		
Three-fourths of the State University Fund (tax of three cents on each \$100 of assessed valuation): remaining one-fourth is devoted to Permanent Im- provements and appears under that head (total income from the three-cent tax was \$710,773.55)	\$533,080.16	
General appropriation: "For the support of the University"	100,000.00	
Special appropriations for Agriculture:		
Cereal Investigation	\$6,000.00	
Farmers' Institutes	10,000.00	
Hog Cholera Serum	1,961.93	
Imperial County Investigations	4,136.85	
Plant Diseases, northern	8,578.36	
Southern California Pathological Labor- atory	19,959.02	
Equipment at Whittier	622.49	
University Farm:		
Buildings	23,639.45	
Equipment	11,846.40	
Implements	1,058.85	
Improvement of Grounds	2,536.26	
Light, Power, Water, and Sewer....	816.60	
Livestock	4,328.29	
Salaries	24,504.67	
General Support	23,546.84	
	<u></u>	
<i>Carried forward</i>	\$143,536.01	\$633,080.16
		<u>\$278,382.24</u>

PRESIDENT'S BIENNIAL REPORT

Brought forward	\$143,536.01	\$633,080.16	\$278,382.24
Viticulture	8,420.80		
		151,956.81	
Music		3,000.00	
Reimbursement for loss of income		40,828.50	
Printing		6,000.00	
			834,865.47

NOTE.—The total received (and receivable) from the the State of California was \$1,012,558.86, composed of the above figure of \$834,865.47 and Permanent Building Fund, \$177,693.39. The total income for the University Farm derived from the State is \$92,277.36, of which \$50,587.77 is for maintenance and support, and \$41,689.59 for buildings, equipment, and improvements.

Students' deposits and fees (net):

Deposits (balances retained for laboratory charges):

Agriculture	\$370.85
Bacteriology	514.25
Bacteriology (Summer Session of 1910)	40.00
Bacteriology (Summer Session of 1911)	51.00
Botany	327.50
Botany (Summer Session of 1911)	10.00
Chemistry	10,893.50
Chemistry (Summer Session of 1910)..	2.75
Chemistry (Summer Session of 1911)..	1,140.00
Civil Engineering	2,988.30
Mechanics	2,265.15
Mineralogy	453.25
Mining	1,530.05
Physics	4,919.75
Physics (Summer Session of 1910)	15.50
Physics (Summer Session of 1911)	267.00
Physiology	59.45
Psychology (Summer Session of 1911)	2.00
Zoology	1,162.35
Zymology	16.10
	\$27,028.75

Fees:

Changing courses	\$283.00
Delayed registration for courses	894.00
Gymnasium	9,380.85
Infirmary	17,083.27
Infirmary (Summer Session of 1910)..	1,022.00
Non-resident (for students from outside California)	4,603.00
Seminar Rooms	21.75
Special Examinations	1,645.00
Summer School of Surveying, 1910	547.89
Summer School of Surveying, 1911	3,100.00

Carried forward	\$38,580.76	\$27,028.75	\$1,113,247.71
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Brought forward\$38,580.76 \$27,028.75 \$1,113,247.71

Summer School of Surveying (Commis-	
sary account) 1910	220.42
Summer School of Surveying (Commis-	
sary account) 1911	4,740.00
Summer Session course in Manual	
Training, 1910	80.00
Summer Session course in Manual	
Training, 1911	93.00
Summer Session course in Home Eco-	
nomics, 1911	185.00
Summer Session, 1910	1,368.25
Summer Session, 1911	24,398.25
Summer Session course in Zoology,	
1911	30.00
	<hr/>
	69,695.68

96,724.43

Dental Department: Fees and miscellaneous receipts, exclusive of	
donations	16,916.81
Medical Department: Fees and miscellaneous receipts	9,455.64
Los Angeles Medical Department: Fees and miscellaneous receipts	7,324.30
University Hospital in San Francisco: Miscellaneous receipts, exclusive	
of donations	36,222.77

Miscellaneous:

University Extension: Fees for courses	\$700.00
Printing and Publishing:	
Charges for work done by Printing	
Office	\$952.10
Sale of Publications	2,651.14
Sale of Weinstock Lectures	37.37
Sale of Brief Account of Lick Observ-	
atory	15.00
Sale of Miss Shinn's Pamphlet	25.30
Sale of Keeler Volume	20.85
Sale of Tebtunis Papyri	130.29
Sale of "Zoe"	22.00
Sale of Academy of Pacific Coast His-	
tory Publications	80.68
	<hr/>
	3,934.73

Agricultural Income:

University Farm:

Creamery	\$41,363.70
Dormitory	12,273.01
Poultry sales	1,076.14
Stock sales, livestock	2,560.39
Stock sales, milk, etc.	2,104.19
Students' deposits	1,660.19
General produce	6,851.55
Veterinary sales	44.75
	<hr/>
	\$67,933.92

Carried forward\$67,933.92 \$4,634.73 \$1,279,891.66

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$67,933.92	\$4,634.73	\$1,279,891.66
License fees and tax for inspection of commercial fertilizers	11,793.44		
License fees for sale of insecticides.....	1.00		
California Educational Butter Scoring Contest	495.25		
Sale of Adams Fund produce, etc	95.16		
Sale of agricultural produce	1.50		
Sale of cereal produce	1,493.25		
Sale of dairy produce	5,561.50		
Sale of dairy cattle	170.47		
Sale of Southern California Pathological Laboratory produce	137.00		
Sale of viticultural produce	137.00		
		89,589.31	
Sale of wood, lumber, junk, etc.	\$339.31		
Sale of mule	50.00		
Military belts	4.09		
Sale of empty carboys from Chemistry De- partment	112.00		
Reimbursement for labor, materials, light, and water	6,842.50		
Rock test, etc., made by Civil Engineering Department	301.00		
Reimbursement for postage, stenographic work, etc.	671.60		
Library fines	41.10		
Examination of schools	50.00		
Infirmary receipts for operations, laundry, prescriptions, etc.	2,933.89		
Certified copy of patent	5.00		
Interest on note of Reinhardt Lumber and Planing Mill Co.	\$47.94		
Less amount allowed in settle- ment	16.04		
		31.90	
Interest on deferred payments of W. H. Smyth for Batchelder Tract lots	96.48		
		11,478.87	
Wilmerding School: Director's receipts		815.55	
			106,518.46
Receipts from Musical and Dramatic events			3,714.67
Gifts for current use:			
Mrs. Hearst:			
Phoebe A. Hearst scholarships	\$2,400.00		
Anthropology	1,680.00		
Hearst Memorial Mining Building equipment	1,122.26		
Hearst Memorial Mining Building alterations	750.00		
		5,952.26	
(See also under "Donations for Erec- tion of Buildings, etc.")			
<i>Carried forward</i>		\$5,952.26	\$1,390,124.79

Brought forward \$5,952.26 \$1,390,124.79

Scholarships:

(Mrs. Hearst as above.)

(The State of California Scholarships
are supported by \$3,500 from the
three-cent tax.)

Levi Strauss Scholarships (the gift of Levi Strauss & Co.)	\$3,500.00	
Lincoln Scholarship	240.00	
Scholarship for Tracy Crane	125.00	
Deficiency of the LeConte Memorial Fel- lowship, donated by James K. Moffitt	145.00	
University Fellowship, Academy of Pa- cific Coast History, per Native Sons of the Golden West	750.00	
		4,760.00

Prizes:

Bonnheim Prize	\$250.00	
Bryce Historical Essay Prize	100.00	
W. C. T. U. Essay Prize	50.00	
		400.00

Library donations for current use:

Ethel W. Crocker	\$1,000.00	
James K. Moffitt, donation	1,000.00	
Library Exchange account	18.87	
E. A. Denicke	40.00	
Donation for Irish books (Knights of St. Patrick)	100.00	
Richardson donation	50.00	
Mrs. W. R. Thorsen's donation for Anatomy books	50.00	
		2,258.87

Student Infirmary for furnishings:

M. H. Durst	\$100.00	
Mrs. Emma Shafter Howard	25.00	
		125.00

For the Lick Observatory:

Wm. H. Crocker: for apparatus	\$1,000.00	
Wm. H. Crocker: for meteorite	197.80	
Estate of D. O. Mills: Southern Hemi- sphere Expedition	8,750.00	
		9,947.80

Donation by the Congregation Emanu-El for the main- tenance of School of Archaeology in Jerusalem	100.00	
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University Hospital in San Francisco:

Mrs. Elise Drexler, for diet kitchen	500.00	
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Carried forward	\$24,043.93	\$1,390,124.79
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PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$24,043.93	\$1,390,124.79
Medicine:		
For Laboratory of Medical Research, per A. A. D'Ancona	36.01	
F. B. Anderson, donation of honorarium for Weinstock Lecture	162.50	
Palaeontological Research: a friend	1,800.00	
Economics: Professor Miller, for extra salary of S. Blum	130.00	
Zoology:		
For salaries (assistance in working up results of the Agassiz Expedition to the South Seas): Professor Alexander Agassiz	\$600.00	
Margaret B. Fowler (Proto-zoological research)	300.00	
San Diego Marine Biological Laboratory Association	1,999.92	
	<hr/>	2,899.92
Miss Annie M. Alexander: for the California Museum of Vertebrate Zoology	11,743.63	
Donation for salary of Miss Stebbins	1,000.00	
Carnegie Foundation for the Advancement of Teaching: Retiring allowances as follows:		
G. H. Howison, Philosophy	\$2,875.00	
Frank Soulé, Civil Engineering	2,045.00	
Isaac Flagg, Greek	1,600.00	
A. Putzker, German	1,500.00	
R. H. Loughridge, Agriculture	1,420.00	
Mrs. Sarah F. L. Rising, widow of W. B. Rising, Chemistry	1,035.00	
Martha S. D. Stringham, widow of Irving Stringham, Mathematics	960.00	
	<hr/>	11,435.00
Academy of Pacific Coast History:		
(These gifts to the Academy were handled by the University as custodian of the funds in behalf of the Academy)	2,920.00	
	<hr/>	56,170.99
Donations for erection of buildings, etc.:		
Boalt Hall of Law	\$8,240.00	
Erection of Tennis Courts	238.00	
Class of 1910: Donation for erection of a bridge over Strawberry Creek	500.00	
Girton Hall: Women's Senior Hall	2,990.00	
Mrs. Hearst, for grading around the Hearst Memorial Mining Building	3,000.00	
	<hr/>	14,968.00
<i>Carried forward</i>		\$1,461,263.73

INCOME

417

Brought forward \$1,461,263.78

Income for Permanent Improvements:

Permanent Improvement Fund (one-fourth of the
three-cent tax) 177,693.39

Gifts for Endowments:

Alumni Hall Fund	\$200.00	
Class of 1895 Loan Fund	591.00	
Class of 1900 Library Fund (an increase)	418.50	
Class of 1911 Fund (income payable to class)	600.00	
Class of 1911 Loan Fund	400.00	
Hamerslag Loan Fund	6,000.00	
Albert Sidney Johnston Scholarship Fund	3,500.00	
Martin Kellogg Fellowship Endowment Fund	20,000.00	
Eugene Meyer, Jr., Library Fund	2,000.00	
Prytanean Fund for the Students' Infirmary	50.00	
		33,759.50
		<u>\$1,672,716.67</u>

Turning over of Funds:

Students' deposits: later returned or due to be re- turned	\$12,544.10
Military uniforms	11,557.00
Certified checks accompanying bids on contracts	106,666.68
Deposits on plans	840.00
Faculty Locker Room key deposits	9.00

Income on Properties held in trust:

For Mrs. Jane K. Sather:	
Proportion of Endowment Pool	\$5,862.34
For Madame Thérèse F. Colin:	
Miscellaneous rents	22.75
Proportion of Endowment Pool	87.69
	<u>5,972.78</u>

Change of form of investment:

Mortgage loans repaid and renewed	\$335,000.00
Collateral loans repaid and renewed	405,000.00
Kearney Vineyard: advances repaid	8,500.00
Student notes from Loan Funds	1,764.84
Watershed notes	20,000.00

Exchange of San Francisco National Bank Stock for Bank of California Stock:

Cash	7,500.00
Balance of book valuation of San Francisco National Bank Stock	18,200.00
Gain in exchange being balance to bring up valuation of Bank of Cal- ifornia Stock	2,350.00

Carried forward\$798,314.84 \$137,589.56 \$1,672,716.67

PRESIDENT'S BIENNIAL REPORT

Brought forward	\$798,314.84	\$137,589.56	\$1,672,716.67
Sale of Highland Tract lots to K. H. Roulstone	1,600.00		
Forfeited deposit on sale of Highland Tract lots to J. S. Hanson	50.00		
		799,964.84	
Cash found in trunk inherited from M. Theo. Kearney ....		.10	
Sale of right of way over land at Menlo Park to Spring Valley Water Co.		2,824.50	
Contingent Funds (LeRoy Anderson refunded his revolving fund)		300.00	
			940,679.00
			<u>\$2,613.395.67</u>

EXPENDITURES

JULY 1, 1910, TO JUNE 30, 1911

Administration:

Administrative salaries:

Salaries	\$38,387.91	
Advisors	2,700.00	
Janitors, Watchmen, etc.	28,297.50	
President's Contingent Expense allotment	3,000.00	
		\$72,385.41
Repairs		16,951.38
Site improvement		17,684.65
Water		5,500.84
Fuel (aside from oil)		1,588.58
Light, Power and Heating System		35,537.42
Equipment		3,170.52
Telephone, Telegraph, and Expressage		5,119.05
Postage		2,243.89
Stationery		1,271.19
Examination of schools		2,169.01
Auditing		2,011.15
Lectures		325.00
Publications (the scientific series are included, but not administrative printing)		8,987.40
Publications: Alumni Directory		1,342.32
Printing Office		8,637.45
		<u>\$184,925.26</u>

NOTE.—The cost of printing for individual departments is not included in this figure; such items have been charged to the various departments, principally as follows:

Carried forward	<u>\$184,925.26</u>
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EXPENDITURES

419

Brought forward \$184,925.26

Printing Office departmental charges:

Publications	\$6,672.70
Library	5,490.10
Summer Session	1,131.50
University Farm Support	1,121.00
Alumni Directory	998.25
Lick Observatory, printing	854.60
Imperial Valley Investigations	836.00
Lick Observatory, equipment	636.95
State Appropriation Cereal	561.75
Fertilizer Control	533.25
Dentistry	407.30
Medicine	407.00
Academy Pacific Coast History	375.25
Civil Engineering	344.75
Agricultural Experiment Station	317.25
Agriculture	315.70
Southern California Pathological Laboratory	314.30
Musical and Dramatic	248.25
Expense	147.00
Students' Infirmary	146.50
Mechanics	110.00
University Hospital	104.00
Electric Light and Power Maintenance	99.75
Economics	98.00
Butter Scoring	90.00
English	85.50
Jurisprudence	83.25
State Appropriation Farmers Institutes	81.00
Wilmerding School	80.75
Military Science	77.75
Chemistry	74.50
Agriculture Education	69.50
Geology	63.00
Architecture	52.70
Romanic Languages	46.00
Hygiene	43.50
Physiology	42.00
History	37.25
Anthropology	34.50
Physics	33.75
Political Science	30.00
Philosophy	28.50
Astronomy	28.00
Mathematics	27.25
Civil Engineering, Summer Session	27.00
Philosophy	22.80
Site	22.25
Insecticide and Fungicide Control	21.00
Adams Fund	21.00
Zoology	18.00

Carried forward \$23,511.90 \$184,925.26

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$23,511.90	\$184,925.26
Palaeontology	15.85	
Physical Culture	15.50	
University Farm—Students' deposits	12.00	
Botany	11.25	
University Farm Creamery	11.00	
Geography	11.00	
German	10.75	
Mining	10.00	
Slavic Languages	8.00	
Irrigation	9.25	
Oriental Languages	5.00	
Gymnasium fees	4.75	
Farm Dormitory	4.00	
Viticulture	3.75	
Latin	4.75	
Plant Diseases, Northern	2.20	
	<hr/>	
	\$23,650.95	
Administrative expense:		
Assistants and Stenographers in all administrative departments	\$27,823.47	
Charter Day Honorarium	\$500.00	
Charter Day expenses, including reception	911.05	
	<hr/>	
	1,411.05	
Traveling expenses	1,211.12	
Gas	724.89	
Rent of President's House	700.00	
Entertaining	670.18	
Rent of San Francisco office	660.00	
Premium on Bonds	585.00	
To Professor F. P. Gay, allowance for removal expenses from the East	500.00	
Premium on Bonds for Ordnance Stores	469.86	
Legal expenses	456.45	
Expense of Half-Hour of Music	339.85	
Hack and automobile hire	271.29	
Cost of transporting coin from Sacramento	235.05	
Insurance	224.32	
Press clippings	214.55	
Allowance to Dr. G. Y. Rusk for removal expenses from the East	200.00	
Rental of room in Stiles Hall for Department of Oriental Languages	200.00	
Rental of Safe Deposit boxes	160.00	
Rental of auxiliary fire alarm boxes at Affiliated Colleges	132.00	
Tuning and cartage on piano	123.00	
Dues for Association of American Universities	\$80.00	
Dues for Association of State Universities	10.00	
	<hr/>	
	90.00	
<i>Carried forward</i>	\$37,402.08	\$184,925.26

EXPENDITURES

421

<i>Brought forward</i>	\$37,402.08	\$184,925.26
Exchange on Drafts	88.45	
Removing Law Books to Boalt Hall of Law	85.80	
Rental of room in Faculty Club (University guest room)	60.00	
Commencement Day expenses	60.63	
Placing and removing gates and barriers, May 24-27	58.70	
Photography, blueprints, etc.	35.03	
Taxes on Sylvan way property	28.62	
Repairing clocks in Administrative Offices	29.00	
Illuminating Document for University of Mexico ..	25.00	
Bicycle repairs	15.84	
Directory Service in California Hall	15.00	
Miscellaneous	78.84	
		37,982.99
Students' Infirmary:		
Equipment and running expenses	\$17,162.30	
Donations for furnishings	131.66	
		17,293.96
Library:		
Departmental allotment:		
Salaries	\$22,410.61	
Expense	765.13	
Assistants	720.32	
Equipment	198.80	
Binding	5,000.00	
Books and periodicals	16,892.93	
Freight, Insurance, etc.	787.08	
	46,774.87	
Robert Belcher donation	1.08	
Class of 1874 Library Fund, interest	2.18	
Class of 1902 Library Fund, interest	1.25	
Class of 1907 Library Fund, interest	78.55	
Ethel W. Crocker donation	446.31	
E. A. Denicke Library Fund, interest	29.65	
Economics 1A donation	10.50	
German Library donation	29.43	
Martha A. Hallidie donation	12.90	
Hutchinson donation	40.00	
Mrs. W. R. Thorsen donation	35.01	
Irish books, donation for	100.00	
Jucksch Fund, interest	65.05	
Mary Lake Memorial donation	43.23	
Duncan McDuffie donation	2.22	
James K. Moffitt donation	924.23	
Michael Reese Library Fund, interest	5,421.28	
Jane K. Sather Library Fund, interest	320.16	
Claus Spreckels donation	657.91	
Zoe, sale of	9.00	
		55,004.81
NOTE.—Total expended for books and periodicals, \$25,122.87.		
<i>Carried forward</i>		\$295,207.02

Brought forward \$295,207.02

Agriculture:

Departmental allotment:

Agriculture	\$21,029.20	
Bacteriology	500.00	
Education	2,000.00	
Entomology	1,200.00	
Forestry	1,500.00	
		\$26,229.20
Carnegie Foundation: retiring allowance		1,420.00

United States:

Adams Fund	\$15,000.00	
Agricultural Experiment Station (Hatch Fund)	15,000.00	
Morrill College Aid Fund	18,074.68	
		48,074.68
Adams Fund sales	\$13.12	
California Educational Butter Scoring Contest	589.00	
Dairying	8,971.38	
Fertilizer Control, exclusive of building	8,879.61	
Cereal Sales Fund	1,695.10	
Southern California Pathological Laboratory sales	1,260.74	

University Farm:

Students' deposits	1,749.76	
Creamery	37,133.07	
Dormitory	13,605.17	
Poultry sales	566.79	
Sales of produce	7,080.55	
Stock sales	3,845.60	
Viticultural sales	137.00	
		85,526.89

State appropriations for Agriculture:

Cereal Investigation	\$6,000.00
Farmers' Institutes	10,158.82
Hog Cholera Serum	1,961.93
Imperial County Investigations	4,136.85
Plant Diseases, northern	8,578.36
Southern California Pathological Laboratory	19,959.02
Equipment of Laboratory at Whittier ..	622.49
Printing Publications and Circulars	6,000.00

University Farm:

Equipment	10,244.54
Implements	1,058.85
Improvement of grounds	2,309.46
Livestock	4,328.29

Carried forward \$75,358.61 \$161,250.77 \$295,207.02

EXPENDITURES

423

<i>Brought forward</i>	\$75,358.61	\$161,250.77	\$295,207.02
Salaries	24,504.67		
General support	22,292.06		
Viticulture	8,420.80		
		<u>130,576.14</u>	
			291,826.91
NOTE.—The following amounts, expended on the construction of buildings, are not included in the above figures:			
Fertilizer Control Laboratory at Berkeley ..	\$425.89		
University Farm: Building operations at Davis	27,539.49		
		<u>\$27,965.38</u>	
Anatomy			6,299.88
Anthropology:			
Departmental allotment	\$7,459.88		
Mrs. Hearst's donation for salaries	1,680.00		
Mrs. Hearst's donation for reconstruction of Museum	286.29		
		<u></u>	9,426.17
Architecture			7,443.13
Astronomy—Berkeley Department			8,719.03
Botany:			
Departmental allotment			14,211.55
Celtic			499.92
Chemistry:			
Departmental allotment	\$27,850.06		
Morrill College Aid Fund	3,999.84		
Carnegie Foundation: Retiring allowance	1,035.00		
		<u></u>	32,884.90
Civil Engineering:			
Departmental allotment	\$20,068.24		
Morrill College Aid Fund	7,200.00		
Carnegie Foundation: Retiring allowance	2,045.00		
		<u></u>	29,313.24
Drawing			8,131.34
Economics:			
Departmental allotment	\$2,401.86		
Cora Jane Flood Endowment Fund Interest	19,478.99		
		<u></u>	21,880.85
Education			16,099.92
English			26,699.44
Geography			4,199.95
Geology and Mineralogy:			
Departmental allotment	\$12,681.32		
Palaeontology	5,061.60		
Donation for Palaeontological Research	1,676.24		
		<u></u>	19,419.16
<i>Carried forward</i>			<u>\$792,262.41</u>

<i>Brought forward</i>		\$792,262.41
German:		
Departmental allotment	\$13,999.44	
Carnegie Foundation: Retiring allowance	1,500.00	
		15,499.44
Greek:		
Departmental allotment	\$8,319.57	
Carnegie Foundation: Retiring allowance	1,600.00	
		9,919.57
History		18,578.71
Hygiene		7,926.39
Irrigation		4,699.96
Jurisprudence		15,509.52
Latin		16,693.94
Mathematics:		
Departmental allotment	\$20,965.33	
Carnegie Foundation: Retiring allowance	960.00	
		21,925.33
Mechanics:		
Departmental allotment	\$15,100.97	
John W. Mackay, Jr., Endowment Fund, interest	4,145.68	
Morrill College Aid Fund	5,699.88	
		24,946.53
Military Science and Tactics		2,484.01
Mining:		
Departmental allotment	\$16,799.84	
Morrill College Aid Fund	4,200.00	
Donation by Mrs. Hearst, for equipment of Hearst Memorial Mining Building	2,520.50	
		23,520.34
Music:		
Departmental allotment	\$246.05	
State appropriation	3,000.00	
		3,246.05
Oriental Languages:		
Departmental allotment	\$1,546.16	
Tompkins Endowment Fund, interest	3,349.80	
		4,895.96
Pathology:		
Salaries	\$6,549.96	
Expenditures on alterations and equipment of Hygiene and Pathology Laboratory	1,954.76	
		8,504.72
Philosophy:		
Departmental allotment	\$4,180.23	
D. O. Mills Endowment Fund, interest	10,057.33	
Carnegie Foundation: Retiring allowance	2,875.00	
		17,112.56
Physical Culture		6,199.88
<i>Carried forward</i>		\$993,925.32

EXPENDITURES

425

Brought forward \$993,925.32

Physics:

Departmental allotment	\$26,750.60
Whiting Fellowships	1,200.00
Morrill College Aid Fund	5,825.60

33,776.20

Physiology

10,366.66

Political Science

5,544.46

Romanic Languages

23,416.08

Sanskrit

1,699.92

Semitic Languages

1,999.92

Slavic Languages

2,023.24

University Extension

908.17

Vertebrate Zoology, Museum of (donation by Miss Annie M. Alexander for support)

11,743.63

Zoology:

Departmental allotment	\$13,022.13
Agassiz donation	849.92
San Diego Marine Biological Laboratory donation (for two-thirds of Professor Ritter's salary)	1,999.92
Margaret B. Fowler donation	80.60

15,952.57

Miscellaneous:

Fire equipment	\$895.05
Abstract for Sylvan way property	10.00
Rewiring Affiliated Colleges	3,179.12
Rewiring buildings at Berkeley	117.47
Seismological apparatus	447.22
Tungsten lamps	64.00

Gymnasium fees, purchases, etc., from:

Towels purchased	\$289.39
Laundry	2,379.02
Counting soiled towels	88.05
Soap machines, repaired	8.60
Soap	204.00
Sanitary cabinets, repaired	1.40
Copper sulphate	17.67
Tennis nets and reels	117.25
Gas and lights	4.32
Repair Basket Ball Courts	28.25
Installing Sanitary Drinking Fountains	10.85
Emergency cases	47.02
Moving lockers from Mining Building ..	17.25
Cleaning filter bed, etc., at Swimming Pool	115.58
Cleaning off Tennis Courts and repairs	750.60
Miscellaneous (bleaching powder, water, freight, etc.)	12.48

4,091.73

(See note at top of next page.)

Carried forward \$8,804.59 \$1,101,356.17

Brought forward \$8,804.59 \$1,101,356.17

NOTE.—Cost of constructing Tennis Courts is to be borne by this account: The total expenditure on construction was \$11,899.94, of which \$10,545.07 has been charged to the Gymnasium Fee account, leaving an amount of \$1,354.87 to be paid out of the fees for 1911-12. There is also to be charged against the Gymnasium Fee account: Cost of construction of Swimming Tank, \$17,200; cost of construction of temporary bathhouse and equipment, \$2,734.09; so that the total expenditures to date to be charged to this account amount to \$21,288.96 (vide under Building Operations).

Bancroft Library, expense	\$989.00
Miscellaneous litigation expenses	2.40
Hitchcock Lectures	500.00
Making keys for Seminar Rooms	5.85
Weinstock Lectures	162.50
Removal of Library from Bacon Library to University Library	1,330.67
Affiliated Colleges: repairs and maintenance of grounds	1,514.60
Tebtunis Papyri, insurance and storage	22.27
State Treasurer—Refund for publications ..	26.00
University Medal	73.00
Short in cash	6.35
Express on jewelry received from the Thompson bequest	1.35
Commission on lease of lands at Menlo	105.91
Interest on overdraft with Treasurer	21.76
Emanu-El donation for American School of Archaeology in Jerusalem	100.00
	<hr/>
	\$4,861.66

13,666.25

Scholarships and Prizes:

State of California Scholarships	\$3,500.00
Bonnheim Prize	250.00
Bryce Historical Essay Prize	100.00
James M. Goewey Scholarship	250.00
Crystal Harford Scholarship	125.00
Phoebe A. Hearst Scholarships	2,400.00
Cornelius B. Houghton Scholarship	150.00
Albert Sydney Johnston Scholarship	175.00
Martin B. Kellogg Memorial Fellowship	600.00
LeConte Memorial Fellowship	500.00
Lincoln Scholarship	240.00
Professor F. V. Paget Scholarship	150.00
Frank M. Pixley Scholarship	200.00
Sheffield Sanborn Scholarships	750.00
Levi Strauss Scholarships	3,500.00

Carried forward \$12,890.00 \$1,115,022.42

EXPENDITURES

427

<i>Brought forward</i>	\$12,890.00	\$1,115,022.42
Willard D. Thompson Scholarships for Utah students..	3,000.00	
University Fellowships	3,200.00	
University Fellowships in Academy of Pacific Coast History from Native Sons of the Golden West	250.00	
Women's Christian Temperance Union Essay Prize	50.00	
		19,390.00
Summer Session:		
Session of 1910	\$14,226.11	
Session of 1911	4,780.61	
Summer School of Civil Engineering, 1910	565.14	
Summer School of Civil Engineering, 1911	2,327.62	
Summer School of Civil Engineering Commissary, 1910	1,368.86	
Summer School of Civil Engineering Commissary, 1911	3,555.59	
		26,823.93
NOTE. —The total net receipts of the Summer Session of 1900 were \$16,676.75 and the total expenditures \$15,062.86.		
Lick Observatory:		
Departmental allotment	\$31,782.55	
From gifts:		
Donation for publication of E. E. Barnard's photographs	\$1,010.50	
Carnegie Institution	1,783.53	
Wm. H. Crocker Mount Whitney Expedition	181.41	
Wm. H. Crocker, for apparatus	250.00	
Wm. H. Crocker, for meteorite	197.80	
William Randolph Hearst, donation for earthquake recording apparatus	244.15	
D. O. Mills Southern Hemisphere Expedition	7,960.48	
	11,627.87	
		43,410.42
Dental Department:		
Running expenses	\$22,074.96	
Dental Library Fund	14.85	
		22,089.81
Medical Department:		
Running expenses	\$14,953.97	
Donation for Laboratory of Medical Research	111.70	
Los Angeles Medical Department:		
Running expenses	7,199.61	
University Hospital in San Francisco:		
Equipment, maintenance, etc.	56,714.18	
Donation by Mrs. Drexler for diet kitchen	326.56	
		79,306.02
<i>Carried forward</i>		\$1,306,042.60

Brought forward	\$1,306,042.60	
Musical and Dramatic performances	1,321.26	
Academy of Pacific Coast History	5,433.96	
Watershed lands (purchase of lands, etc., in Strawberry Cañon)	465.47	
Kearney Estate: Expenditures made from payment of bequest:		
Erection of cottage for Kearney Experiment Station ..	202.77	
Building Operations (expenditures during the year on work in progress):		
Affiliated Colleges: fire escapes	\$1,236.78	
Allston way, street improvement	3,013.40	
Bath house and equipment at Swimming Pool (cost ultimately to be defrayed by Gymnasium fees)	2,734.09	
Boalt Hall of Law	66,777.54	
Civil Engineering Building, addition	1,540.81	
Civil Engineering Building, testing laboratory	2,672.32	
Class of 1910 donation for foot bridge over Strawberry Creek	73.27	
University Library Building (from the Doe bequest)	116,429.85	
East Hall alterations	1,864.97	
Fertilizer Control Laboratory, Berkeley	425.89	
Women's Senior Hall Building	65.12	
Harmon Gymnasium, repairs	1,600.00	
Mechanics Building, alterations	449.95	
Menlo: part cost of erection of building	173.00	
Mining Building, alterations	738.40	
Physiological Laboratory, alterations	479.60	
Sather Gateway (from Mrs. Sather's gift) ..	6,811.71	
Tennis Courts (cost ultimately to be defrayed by Gymnasium fees)	2,792.52	
Swimming Tank (cost ultimately to be defrayed by Gymnasium fees)	17,168.30	
University Farm: Building operations	27,539.49	
Women's Swimming Pool	36.89	
Potrero avenue lot: laying sidewalk	316.25	
Extending pipe line to Cañon Cottage	49.20	
Columbian Marble Bench (erected from the funds in hands of the University belonging to the Class of 1905)	234.90	
New roads: North of Doe Library, expended from donation by Mrs. Hearst (see also expenditures of \$18,885.94 out of Permanent Building Fund)	3,000.00	
	258,224.25	
Carried forward	\$258,224.25	\$1,313,466.06

EXPENDITURES

429

Brought forward \$258,224.25 \$1,313,466.06

Permanent Building Fund:

Agriculture Hall Building: Expenditures

during year\$83,304.86*

Bacon Hall, alterations 41.85

Baseball Field, grading 83.50

Boalt Hall, furnishings 3,997.31

California Hall, equipment 1,716.94

California Hall, heating and ventilating

attic 35.37

New roads: California Hall to Telegraph

avenue 5,412.41

New roads: La Loma wagon road entrance 277.30

New roads: North of new University Li-

brary and from the Philosophy Building

to the Hearst Memorial Mining Building 18,885.94

President's House, building 39,727.13

President's House, walks and roads 9,374.81

President's House, furnishings 10,651.65

Strawberry Cañon weir 65.50

Transformers 736.36

Tunnels for Electric Light and Power De-

partment 10,014.82

University Library furnishings, expendi-

tures during year 74,651.74*

\$258,977.49

517,201.74

Wilmerding School:

Running expenses \$25,329.81

New building (under construction by boys) 3,326.00

Street improvement 1,803.68

30,459.49

Turning over of Funds:

Jane K. Sather Funds:

Sather Chair Fund, interest paid to

Mrs. Sather \$5,621.35

Sather Law Library Fund, interest paid

to Mrs. Sather 2,540.85

Class of 1909 Fund—Payment to Secretary 75.70

Class of 1909 Loan Fund—Payment to

Secretary 32.02

Class of 1910 Fund—Payment to Secretary 83.28

Madame Thérèse F. Colin::

Payments to Madame Thérèse F. Colin 110.98

Taxes and insurance 25.00

\$8,489.18

Carried forward \$8,489.18 \$1,861,127.29

* These are total expenditures during year. The appropriation from the Permanent Building Fund for each of these buildings was \$200,000, to be charged in annual installments of \$20,000 for each project.

Carried forward	\$8,489.18	\$1,861,127.29
Bills payable	20,000.00	
Students' deposits returned	13,235.01	
Military uniforms	11,447.80	
Certified checks accompanying bids on contracts re- turned to contractors	112,622.58	
Deposits on plans	775.00	
Bills receivable:		
Mortgage loans (consummated and re- newed)	\$225,000.00	
Collateral loans (consummated and re- newed)	50,000.00	
Kearney Vineyard: Advances account..	5,000.00	
Student notes from loan funds	3,031.36	
	<hr/>	283,031.36
Contingent Fund:		
E. J. Wickson, Agricultural Department	\$1,000.00	
C. H. Rieber, for Summer Session	150.00	
Roger M. Roberts, University Farm, Davis ..	700.00	
	<hr/>	1,850.00
Willard D. Thompson Endowment:		
Inheritance tax, redemption of taxes and recording	4,824.41	
Improvements, etc., on buildings, etc., held as invest- ments:		
Johnson Building site	\$252.70	
Sacramento Building site	80,530.43	
Highland Tract lots, Berkeley (abstract)	15.00	
Broadway Terrace lots, Oakland: Street assessment, etc.	2,637.27	
	<hr/>	83,435.40
Valuation of properties:		
Martin Kellogg Fellowship Endowment:		
Tonopah United Water Co. bonds....	\$20,000.00	
Bank of California stock	20,550.00	
	<hr/>	40,550.00
	<hr/>	580,260.74
		<hr/>
		<u>\$2,441,388.03</u>

RECEIPTS—REVENUE ACCOUNT

YEAR ENDING JUNE 30, 1911

(This represents income from the General Fund, i.e., of moneys not restricted to special purposes.)

State appropriations:

"Three-cent tax" (tax of 3 cents on each \$100 of assessed valuation)	\$529,580.16	
General support	100,000.00	
To reimburse income	8,628.50	
		\$638,208.66

Endowment Pool Income on Consolidated Perpetual Endowment	129,856.99
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Students' Deposits and Fees (net):

Agriculture	\$370.85	
Bacteriology	514.25	
Botany	327.50	
Chemistry	10,893.50	
Civil Engineering	2,988.30	
Mechanics	2,265.15	
Military uniforms (accumulation of amounts not claimed)	167.55	
Mineralogy	453.25	
Mining	1,530.05	
Physics	4,919.75	
Physiology	59.45	
Zoology	1,162.35	
Zymology	16.10	
Changing courses	283.00	
Delayed registrations	894.00	
Non-resident	4,603.00	
Seminar	15.90	
Special examinations	1,645.00	
		33,108.95

Interest on note of Reinhart Lumber and Planing Mill Co.	\$47.94	
Less allowance in settlement	16.04	
		31.90
Interest on purchase of Batchelder Tract lots		96.48
Bear Gulch Water Co. bonds interest		3,750.00
Examination of schools		50.00
University Extension fees		700.00

Sundry rents:

Cottages: Rents	\$2,160.31	
Less repairs	1,050.62	
	\$1,109.69	
Carried forward	\$1,109.69	\$805,802.98

<i>Brought forward</i>	\$1,109.69	\$805,802.98
2642 Sylvan way	610.00	
Such Ranch	425.00	
Seaman Cottage	50.00	
Lot 5, University Heights	12.00	
Potrero avenue lots	88.00	
Congressional land—S. B. Sumner	20.00	
		2,314.69
Medicine fees, etc.		9,455.64
Anthropology: Sale of mule		50.00
Chemistry: Sale of empty carboys		112.00
Civil Engineering: Tests		301.00
Dentistry:		
Accumulation of funds at June 30, 1910	\$5,880.53	
Amount transferred to "Dental Endowment Fund"	4,329.09	
Amount retained to pay outstanding liabilities at June		
30, 1910	\$1,551.44	
Fees and miscellaneous receipts (net)	16,916.81	
		18,468.25
Dairying:		
Sale of produce	\$5,561.50	
Sale of cattle	170.47	
		5,731.97
Economics: Donation by Professor Miller for salary of S.		
Blum		130.00
Library:		
Fines	\$41.10	
Books	125.28	
Periodicals	17.65	
Expense	5.75	
Freight	65.58	
		255.36
Lick Observatory:		
Income on Endowment	\$5,728.20	
Rent: Morrow	80.00	
		5,808.20
Mechanics: Sale of junk		145.96
Military Science: Belts		4.09
Printing Office and Publications:		
Cash receipts for work done at Printing Office	\$952.10	
Sale of Publications	2,625.14	
Postage, binding, etc.	37.87	
		3,615.11
Zoology: Sale of materials		37.21
Reimbursement for work done, supplies, etc.:		
University Site	\$2,833.15	
Administration:		
Repairs	2,447.98	
Telephone, Telegraph and Express	463.49	
Salaries (Janitor)	251.65	
<i>Carried forward</i>	\$5,996.27	\$852,232.46

CHARGES—REVENUE ACCOUNT

433

Brought forward	\$5,996.27	\$852,232.46
Writing letters (Appointment Secretary)	137.87	
Water	245.49	
Sale of junk	25.00	
Sale of wood	166.35	
Stationery	32.48	
Postage	8.86	
Old bicycle sold	2.00	
Electric Light and Power Department	753.84	
Copy of Patent	5.00	
Typewriting	28.90	
Miscellaneous	21.05	
		7,423.11
Donation for Mining Building alterations by Mrs. Hearst, balance		11.60
		<u>\$859,667.17</u>

CHARGES—REVENUE ACCOUNT

YEAR ENDING JUNE 30, 1911

(This represents expenditures from the General Fund; i.e., of moneys not restricted to special purposes.)

Agriculture:

Salaries	\$13,029.20	
Current expenses	8,000.00	
Forestry	1,500.00	
Entomology	1,200.00	
Bacteriology	500.00	
Education	2,000.00	
		\$26,229.20

Anatomy:

Salaries		6,299.88
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Anthropology:

Salaries	\$5,209.88	
Expenses	2,250.00	
		7,459.88

Architecture:

Salaries	\$6,506.52	
Expenses	936.61	
		7,443.13

Astronomy:

Salaries	\$7,699.92	
Expenses	1,019.11	
		8,719.03

Carried forward \$56,151.12

<i>Brought forward</i>		\$56,151.12
Botany:		
Salaries	\$10,239.90	
Expenses	3,971.65	
		14,211.55
Celtic: Salaries		499.92
Chemistry:		
Salaries	\$15,999.48	
Expenses	11,850.58	
		27,850.06
Civil Engineering:		
Salaries	\$11,934.84	
Expenses	8,133.40	
		20,068.24
Dairying:		
Salaries	\$1,399.92	
Expenses	7,571.46	
		8,971.38
Dentistry:		
Salaries	\$10,899.72	
Expenses (see receipts)	11,175.24	
		22,074.96
Drawing:		
Salaries	\$7,999.92	
Expenses	131.42	
		8,131.34
Economics:		
Salaries	\$1,833.24	
Expenses	568.62	
		2,401.86
Education:		
Salaries	\$15,499.92	
Expenses	600.00	
		16,099.92
English:		
Salaries	\$25,999.44	
Expenses	700.00	
		26,699.44
Geography:		
Salaries	\$3,899.88	
Expenses	300.07	
		4,199.95
Geology and Mineralogy:		
Salaries	\$11,399.88	
Expenses	1,281.44	
		12,681.32
German:		
Salaries	\$13,549.44	
Expenses	450.00	
		13,999.44
<i>Carried forward</i>		\$234,040.51

CHARGES—REVENUE ACCOUNT

435

<i>Brought forward</i>		\$234,040.50
Greek:		
Salaries	\$8,199.96	
Expenses	119.61	
		8,319.57
History:		
Salaries	\$17,499.84	
Expenses	1,078.87	
		18,578.71
Hygiene:		
Salaries	\$6,600.00	
Expenses	1,326.39	
		7,926.39
Irrigation:		
Salaries	\$3,999.96	
Expenses	700.00	
		4,699.96
Jurisprudence:		
Salaries	\$15,209.52	
Expenses	300.00	
		15,509.52
Latin:		
Salaries	\$15,899.76	
Expenses	794.18	
		16,693.94
Library:		
Salaries	\$22,410.61	
Assistants	720.32	
Equipment	198.80	
Expense	765.13	
Binding	5,000.00	
Books	11,479.32	
Periodicals	5,413.61	
Freight, Expressage, Insurance, etc.	787.08	
		46,774.87
Lick Observatory (subject to income from Endowment):		
Salaries	\$22,559.88	
Expenses	6,998.00	
Adjustment of old Voucher in 1904	60.00	
Purchase of books	1,414.67	
Printing	750.00	
		31,782.55
Mathematics:		
Salaries	\$20,011.78	
Expenses	953.55	
		20,965.33
Mechanics:		
Salaries	\$7,261.62	
Expenses (see also cash received from sale of junk)	7,839.35	
		15,100.97
Medicine:		
Expenditures (see also fees received)		14,953.97
<i>Carried forward</i>		\$435,346.28

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>		\$435,346.28	
Military Science:			
Salaries	\$799.92		
Expenses	1,684.09		
(See also cash received for damage to accoutrements)			2,484.01
Mining:			
Salaries	\$11,799.84		
Expenses	5,000.00		
			16,799.84
Music: Expenses			246.05
Oriental Languages:			
Salaries	\$1,370.16		
Expenses	176.00		
			1,546.16
Palaeontology:			
Salaries	\$4,761.60		
Expenses	300.00		
			5,061.60
Pathology: Salaries			6,549.96
Philosophy:			
Salaries	\$3,017.51		
Expenses	1,162.72		
			4,180.23
Physical Culture:			
Salaries	\$5,399.88		
Expenses	800.00		
			6,199.88
Physics:			
Salaries	\$17,303.48		
Expenses	9,447.12		
			26,750.60
Physiology:			
Salaries	\$7,966.66		
Expenses	2,400.00		
			10,366.66
Political Science:			
Salaries	\$5,499.96		
Expenses	44.50		
			5,544.46
Printing Office:			
Salaries	\$2,199.96		
Expenses	30,088.44		
		\$32,288.40	
		23,650.95	
Less work done for departments			8,637.4
(See also cash receipts for work done.)			
<i>Carried forward</i>			\$529,713.1

CHARGES—REVENUE ACCOUNT

437

Brought forward \$529,713.18

Romanic Languages:

Salaries	\$21,916.08	
Expenses	1,500.00	
		23,416.08

Sanskrit: Salaries 1,699.92

Semitic Languages: Salaries 1,999.92

Slavic Languages:

Salaries	\$1,999.92	
Expenses	23.32	
		2,023.24

University Extension:

Salaries	\$199.92	
Expenses	708.25	
		908.17

University Site: Expenses	\$26,223.31	
Less work done for departments	8,538.66	
(See also cash receipts for reimbursement for labor, etc.)		17,684.65

Zoology:

Salaries	\$10,849.92	
Expense (see also cash receipts for sale of materials)....	2,172.21	
		13,022.13

Excess of expenditures over receipts of the University		
Hospital		13,195.82

Administration:

Salaries:

Advisors	\$2,700.00	
Janitors	28,297.50	
President's Contingent	3,000.00	
Administration	37,387.91	
		\$71,385.41

Fellowships	3,200.00	
Expenses (for details see p. 420)	37,982.99	

Electric Light and Power:

Maintenance: Salaries	\$3,600.00	
Maintenance: Expenses	27,496.01	
Current repairs	1,469.34	
Reconstruction	2,972.07	
Tungsten lamps	64.00	
Rewiring buildings	117.47	
		35,718.89

Repairs: Expenses	\$39,257.60	
Less work done for departments, etc.	22,306.22	
		16,951.38

Carried forward \$165,238.67 \$603,663.11

<i>Brought forward</i>	\$165,238.67	\$603,663.11
Water	\$5,500.84	
Publications	8,987.40	
Alumni Directory	1,342.32	
Equipment	3,170.52	
Fuel	1,588.58	
Telephone, Telegraph, and Expressage	5,119.05	
Postage	2,243.89	
Auditing	2,011.15	
Lectures	325.00	
Stationery	1,271.19	
Examination of schools	2,169.01	
	<u>33,728.95</u>	
(See also cash credit for work done, etc.)		198,967.62
Recording Bill of Sale on "Tunbridge"		2.40
Short in taking cash		6.35
Bancroft Library: Expense		989.00
Affiliated Colleges: Repairs and maintenance of grounds		1,514.60
Library removal		1,330.67
Interest on Daily Balances:		
The Endowment Pool is credited with interest, at the Endowment Pool rate for the previous half-year, on average daily balance of investment moneys on hand, which amounted:		
For the first half-year at 6.3637 per cent per annum to	\$3,720.36	
For the second half-year at 6.4843 per cent per annum	7,591.49	
	<u>\$11,311.85</u>	
Amount received from Treasurer	2,209.77	
		<u>9,102.08</u>
(This is equivalent to saying that the General Fund has borrowed money from the Investment Fund, paying 6.3637 per cent per annum for it for the first half-year and 6.4843 per cent per annum for the second half-year.)		
Amount credited to Mills Endowment Fund		5,000.00
Interest charged by Treasurer on overdraft		21.76
Expenditures on erection of buildings, etc., during year:		
Affiliated Colleges, fire escapes	\$1,236.78	
Affiliated Colleges, rewiring	3,179.12	
Allston way, improvement of street	3,013.40	
Civil Engineering Building, addition	1,540.81	
Civil Engineering Building, Testing Laboratory	2,672.32	
Hygiene and Pathology, laboratory equipment	1,954.76	
East Hall, alterations	1,864.97	
Harmon Gymnasium, repairs	1,600.00	
Mechanics Building, alterations	449.95	
Physiological Laboratory, alterations	479.60	
	<u>\$17,991.71</u>	
<i>Carried forward</i>	\$17,991.71	\$820,597.59

CHARGES—REVENUE ACCOUNT

439

<i>Brought forward</i>	\$17,991.71	\$820,597.59
Extend pipe line to Cañon Cottage	49.20	
Purchase of property on Sylvan way, previously charged against Endowment as representing income produc- ing property	15,395.00	
Potrero avenue lots, laying sidewalk	316.25	
Fire equipment	895.05	
Seismological apparatus	447.22	
Women's Swimming Pool	36.89	
		35,131.32
		<u>\$855,728.91</u>

SUMMARY OF REVENUE ACCOUNT

Receipts for 1910-11	\$859,667.17
Charges for 1910-11	855,728.91
Excess of receipts over charges	\$3,938.26
Balance on hand at June 30, 1910	37,719.19
Balance on hand at June 30, 1911	<u>\$41,657.45</u>

SCHEDULES REFERRED TO IN THE BALANCE SHEET FOR
JUNE 30, 1911

A. REAL ESTATE IN BERKELEY

NOTE.—Italics indicate a gift.

<i>Campus lands</i> (given by the College of California and its friends)	\$1,000,000.00
<i>Hearst Hall Site and Hearst Cottage Site</i> (the gift of Mrs. Phoebe A. Hearst)	7,000.00
Hillegass Tract	194,991.04
Palmer House site (on Piedmont avenue)	17,500.00
Watershed Lands (in Strawberry Cañon)	165,243.61
Sylvan way property (buildings and site) on Campus	15,395.00
	<u>\$1,400,129.65</u>

B. BUILDINGS AND IMPROVEMENTS IN BERKELEY

NOTE.—Italics indicate a gift.

In active use for University purposes:

Acid House	\$480.00
Agricultural Building	7,200.00
Agriiculture Hall (expenditures to June 30, 1911)	83,674.26
Anatomical Laboratory and Printing Office	6,400.00
Architectural Building	12,248.08
<i>Bacon Library Building</i> (for this Henry Douglass Bacon gave \$25,000)	55,515.74
Bacteriological Laboratory	480.00

<i>Carried forward</i>	<u>\$165,998.08</u>
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<i>Brought forward</i>	\$165,998.08
Barns	2,000.00
<i>Boalt Hall of Law</i> (expenditures to June 30, 1911; for this Mrs. Boalt has given \$100,000 and the lawyers of California have subscribed \$50,000)	157,667.54
Botany Building	5,600.00
Bridge at Football Statue	3,384.33
Bridge at Sather Gate	10,922.86
<i>California Field</i> (improvements of football grounds; built by the Associated Students)	20,000.00
California Hall	271,711.33
Carpenter's Shop, building and machinery	4,033.19
Cement sidewalks	596.25
Chemistry Building	81,000.00
<i>Cinder Path</i> (old athletic track; built by the Associated Students) ..	1,000.00
Civil Engineering Hall	38,582.61
Civil Engineering Laboratory	2,400.00
Civil Engineering Testing Laboratory (expenditures to June 30, 1911)	2,672.32
Conservatory	10,800.00
Dairy Barn	2,400.00
Dairy Milk House, equipment, etc.	4,160.60
Manure Pit	1,031.15
East Hall	16,000.00
Entomological Laboratory	2,569.99
<i>Faculty Club</i> (built by the Faculty Club)	12,000.00
Fertilizer Control Laboratory	14,615.29
<i>Greek Theatre</i> (the gift of William Randolph Hearst)	45,000.00
<i>Harmon Gymnasium</i> (the original building was the gift of A. K. P. Harmon)	50,181.89
<i>Hearst Hall</i> (the gift of Mrs. Phoebe A. Hearst)	35,978.30
<i>Hearst Memorial Mining Building</i> (the gift of Mrs. Phoebe A. Hearst, as a memorial to her husband, Senator George Hearst) ..	644,400.00
Hog pens, etc., Strawberry Cañon	437.00
Hygiene and Pathology Laboratory	24,940.02
Landscape Gardening (grading, walls, etc.)	3,118.85
Mechanics Building	61,025.00
<i>John Mitchell Monument</i> (erected by the University Cadets)	358.95
<i>Museum Building, Archaeology</i> (the gift of Mrs. Phoebe A. Hearst) ..	3,667.77
New permanent roads	47,890.74
North Hall	20,000.00
Philosophy Building	8,000.00
Plant houses	957.00
Platform scales	350.00
Power, Light, and Heat Plant	\$73,421.29
Workshop for Electric Light and Power Department	1,040.40
Electric construction on Campus	8,533.59
Heating system (exclusive of Central Station)	41,967.43
	124,962.71
President's House: Building (expenditures to June 30, 1911)	111,098.22
President's House: Walks and roads (expenditures to June 30, 1911)	9,374.81
<i>Carried forward</i>	\$2,022,886.80

BALANCE SHEET—SCHEDULES

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Brought forward \$2,022,886.80

Rifle Range	501.90
Sather Gateway (expenditures to June 30, 1911; from gift of Mrs. Jane K. Sather)	32,128.09
Senior Hall (given by the Order of the Golden Bear)	4,676.98
Shops (carpenter, painter, etc.)	1,200.00
South Hall	126,000.00
Rudolph Spreckels Temporary Physiological Laboratory (the gift of Rudolph Spreckels)	25,000.00
Store house	635.53
Strawberry Cañon weir	569.80
Students' Infirmary	16,084.96
Students' Observatory	8,000.00
Swimming Tank (built from the Students' Gymnasium fees; expenditures to June 30, 1911)	17,200.00
Tennis Courts (built from the Students' Gymnasium fees; expenditures to June 30, 1911)	21,970.89
Trunk Sewer	6,356.10
University Library (expenditures to June 30, 1911; built out of the Charles Franklin Doe bequest, amounting at June 30, 1911, to \$740,402.41)	672,338.38
Viticultural Laboratory	400.00
Zoology, California Museum of Vertebrate (Miss Annie M. Alexander gave half the cost)	14,703.45
	<hr/>
	\$2,970,652.88

Dwellings rented:

Hearst Cottage, College avenue (given by Mrs. Phoebe A. Hearst)	\$2,750.00
Palmer House (Piedmont avenue)	2,500.00
University Cottages (Allston way)	9,600.00
	<hr/>
	14,850.00
	<hr/>
	\$2,985,502.88

C. REAL ESTATE AND IMPROVEMENTS NOT IN BERKELEY

Utilized for University purposes:

San Francisco:

Affiliated Colleges (the land was given by Adolph Sutro)	\$405,707.74
San Francisco Institute of Art (the gift of Edward F. Searics)	235,150.00

Wilmerding School:

New building	\$42,466.87
Old building	24,906.46
Real estate	58,293.80
	<hr/>
	125,667.13
	<hr/>
	766,524.87

Carried forward \$766,524.87

<i>Brought forward</i>		\$766,524.87
Lick Observatory:		
<i>Lands, buildings and equipment</i>	\$610,000.00	
Holden Tract	511.25	
Cook Tract	960.00	
Hartzoke Tract	262.73	
Duckworth Tract	316.42	
Electric Light and Power Plant	11,606.23	
Photographic vault	19,834.70	
Tank	2,701.00	
Barn	1,254.95	
		647,447.28
Pacific Grove:		
<i>Real estate of Herzstein Seaside Laboratory</i> (given by Dr. M. Herzstein)		2,500.00
Davis (University Farm):		
Lands	\$103,290.00	
Water right	3,895.53	
Dairy Building and Livestock Pavilion ..	\$32,303.73	
Cottages nos. 1 and 2	7,951.45	
Workshops	6,529.50	
Seed house	3,913.00	
Sewerage and water systems	17,779.00	
Dining Room Building	12,606.45	
Dormitory	28,000.00	
Sheep Barn	4,530.00	
Horse Barn	6,880.00	
Horticultural Building	19,163.00	
Dairy Barn	17,338.00	
Silo	1,537.50	
Veterinary Science Building	7,600.00	
Office building	6,907.00	
Miscellaneous	39,677.95	
	212,716.58	
		319,902.11
Southern California Pathological Laboratory:		
Buildings at Riverside	\$4,000.00	
Buildings at Whittier	7,856.36	
		11,856.36
<i>Kearney Estate</i> (5400 acres near Fresno, bequeathed by M. Theo. Kearney)		1,000,000.00
<i>Los Angeles Medical Departemnt:</i> Lands, buildings and equipment (given by the Los Angeles College Clinic Association)		100,000.00
<i>Carried forward</i>		\$2,848,230.62

Brought forward \$2,848,230.62

Other Real Estate:

Congressional lands*	\$11,818.27	
Public Building lands†	800.00	
Potrero avenue lots (originally bought for the Medical Department)	10,364.39	
		22,982.66
		<u>\$2,871,213.28</u>

D. INVESTMENTS

Bills Receivable, Bonds, Stocks, and Real Estate

Bills Receivable:

Mortgage loans	\$1,355,000.00	
Collateral loans	90,000.00	
Kearney Vineyard Co.: Advance account	2,500.00	
J. B. Reinstein (note as donation for University Hospital)	1,000.00	
Loans from the Class of 1886 Loan Fund	2,163.08	
Loans from the Class of 1895 Loan Fund	335.00	
Loans from the Class of 1903 Loan Fund	1,059.63	
Loans from the Class of 1909 Loan Fund	1,128.78	
Loans from the Grubstake "W" Loan Fund	361.30	
Loans from the Medal Loan Fund	283.90	
Loans from the Walton Memorial Loan Fund	744.00	
		\$1,454,575.69

Notes given in part payment of purchase price of Water-shed lands—purchased under discount 19,840.44

Bonds:

Bear Gulch Water Co. (par value \$164,000)	\$164,000.00	
Montgomery avenue bonds (par value \$22,000)	1.00	
Tonopah United Water Co. (par value \$20,000)	20,000.00	
State Treasurer (vide Cal. Stats. 1899-93)	751,000.00	
State Treasurer: Diverted Funds (vide Cal. Stats. 1899-93)	79,750.00	
Pacific Gas and Electric Co. (par value \$2,000)	1,600.00	
Oakland Traction Consolidated (par value \$15,000)	14,662.50	
Sacramento Electric Gas and Railway Co. (par value \$1,000)	1,020.00	
Southern Pacific Railroad 1st Refunding 4 per cent Gold Bonds (par value \$33,000)	32,937.50	
		1,064,971.00
Carried forward		\$2,539,387.13

* This is 3954.47 acres of land still on hand from the original grant of 150,000 acres; all have once been sold, but these have come back to the University by foreclosure or cancellation of contracts.

† This is 320 acres of land still on hand from the original grant of 6,400 acres; all have once been sold, etc.

Brought forward \$2,539,387.13

Stocks:

Weinstock-Lubin Real Estate Co. (500 shares preferred, par value \$5,000)	\$5,000.00	
Firemen's Fund Insurance Co. (100 shares common, par value \$10,000)	21,000.00	
Sather Banking Co. and San Francisco National Bank (200 shares Sather Banking Co. common stock, par value \$2,800)	2,800.00	
Bank of California (100 shares common, par value \$10,000)	20,550.00	
Mackay Companies (704 shares preferred, par value \$70,400)	50,000.00	
Kennedy Mining and Milling Co.* (1200 shares common, par value \$120,000)	1.00	
University Land and Improvement Co., Cloyne Court Court (2500 shares common, par value \$2,500)	2,500.00	
Stocks, Notes, and Mining Claims (Thompson Fund)	1.00	
		<hr/>
		101,852.00

Real Estate and Improvements:

Real estate in West Berkeley (4 lots on Sixth street)....	\$2,083.11
Real estate in Escondido (76 acres)	2,000.00
Real estate in Menlo (1390 acres)	20,763.25
Real estate in Oakland (Broadway Terrace lots)	45,161.25
Real estate in Oceanside (75 x 100 feet)	1,800.00
Real estate in Redlands	5,714.10

Real Estate in San Francisco:

Johnson Building site	\$400,000.00	
Sacramento Building site	200,000.00	
Johnson Building reconstruction	1,536.20	
Sacramento Building reconstruction	92,106.84	
		<hr/>
		693,643.04
Real estate on Dearborn street, Chicago (Thompson bequest)	\$50,000.00	
Real estate in Salt Lake City (Lot 6, Block 12, Plot E)	3,500.00	
		<hr/>
		824,664.75
Balance of contract for sale of 80 feet on Eunice street, North Berkeley, to Katherine H. Roulstone		1,100.00
		<hr/>
		\$3,467,003.88

NOTE.—The University of California also holds \$400,000 stock of the Bear Gulch Water Company not valued on the books.

* These stocks were received in April, 1907, as part of the distribution of the Doe Estate. They were valued at \$6,000, and dividends as received were credited to this valuation.

E. DEPARTMENTAL ACCOUNTS AND OTHER EXPENDITURES CARRIED
FORWARD TO YEAR 1911-12

Store account	\$355.53
Agriculture	98.78
Agriculture: Bacteriology	40.13
Agriculture: Education	51.09
Agriculture: Entomology	28.94
Anthropology	11.00
Civil Engineering	327.16
Education	28.30
Electric Light and Power: General construction	8,997.61
English	12.09
Geology and Mineralogy	422.91
German	4.89
Irrigation	26.75
Jurisprudence	11.87
Library	2,887.80
Library, Bancroft Cataloguing	100.00
Lick Observatory	313.20
Lick Observatory, printing	609.22
Military Science and Tactics	13.93
Mining	215.50
Physical Culture	5.72
Physiology	333.27
Printing Office	716.80
Publications	100.00
Repairs	1,322.80
Romanic Languages	95.74
Site	1,022.85
Zoology	199.37
Summer Session: Civil Engineering	3,052.56
Agricultural Experiment Station Sales Fund	1,082.97
Cereal sales	190.14
Forestry sales	115.15
Southern California Pathological Laboratory, Sales Fund	843.09
University Farm: Dormitory account	1,563.41
Student Infirmary: Excess of expenditures for building alterations, equipment and maintenance over receipts to date	822.55
Excess of expenditures for buildings, etc., to be made good ultimately from receipts of Gymnasium Fee:	
Tennis Courts	\$1,354.87
Swimming Tank	17,168.30
Bath House and equipment	2,734.09
	<hr/> 21,257.26
Amounts advanced under State appropriations for 1911-13:	
Insecticide and Fungicide Control	21.00
Cereal Investigations	25.00
University Farm: Buildings	1,153.73
University Farm: Livestock	2,693.52
Viticulture Investigations	12.85
Carried forward	<hr/> \$51,186.48

Brought forward	\$51,186.48
Civil Engineering Building alterations, provided for in budget of 1911-12	71.55
Expenditures on the erection and furnishing of buildings paid out of Permanent Building Fund moneys; to be made good by charges against that fund in annual installments of \$20,000 for each enterprise:	
Doe Library, furnishing and equipment	\$34,651.74
Agriculture Hall, erection of building	43,674.26
	<hr/> 78,326.00
There is also an amount of \$125,243.61 for expenditures on purchase of Watershed Lands, to be charged to Permanent Building Fund in annual installments of \$20,000.	
	<hr/> \$129,584.03

F. AMOUNTS DUE FROM THE STATE OF CALIFORNIA UNDER VARIOUS APPROPRIATIONS

Three-cent tax	\$89,828.20
Reimbursement of income	15,500.00
General Support	8,333.37
Chair of Music	500.00
Imperial County Investigations	825.58
Plant Diseases, Northern	2,388.71
Southern California Pathological Laboratory	2,177.12
Southern California Pathological Laboratory equipment	116.20
University Farm: Equipment	81.38
University Farm: Improvements of grounds	616.70
University Farm: Livestock	1,826.48
University Farm: Salaries	4,041.28
University Farm: Support	6,283.09
Viticulture	1,566.94
Hog Cholera Serum	1,961.93
	<hr/> \$136,046.98

G. SUSPENSE ACCOUNT

Turner mortgage (case under litigation)	\$47,000.00
Excess of expenditure over amount provided under State appropriation for University Farm for 1907-09 (Legislature of 1911 made appropriation for this)	12,289.37
	<hr/> \$59,289.37

H. ENDOWMENT FUND ACCOUNTS

	Income for 1910-11	Balance June 30, 1911
Alumni Association: Life Membership Fund (income for use of Alumni Association)	\$215.37	\$3,545.40
Alumni Hall Fund (gifts from Alumni for building a Student Club House)	515.03	8,628.16
Class of 1874 Library Fund	3.37	52.91
Class of 1886 Loan Fund	276.69	4,298.39
	<hr/>	<hr/>
Carried forward	\$1,010.46	\$16,524.86

BALANCE SHEET—SCHEDULES

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	Income for 1910-11	Balance June 30, 1911
<i>Brought forward</i>	\$1,010.46	\$16,524.86
Class of 1895 Loan Fund	12.30	603.30
Class of 1897 Library Fund	6.69	105.08
Class of 1900 Library Fund	25.73	568.50
Class of 1902 Library Fund	7.95	125.00
Class of 1903 Loan Fund	53.84	1,063.67
Class of 1905 Fund (to be spent on a memorial bench and chair)	27.31	282.79
Class of 1907 Permanent Endowment Fund (income for the purchase of books)	31.82	500.00
Class of 1907 Permanent Endowment Fund (income for the benefit of the class)	9.54	150.00
Class of 1908 Fund (income for the benefit of the class)	14.67	241.67
Class of 1909 Endowment Fund (income for the benefit of the class)	38.17	600.00
Class of 1909 Loan Fund (income for the benefit of the class)	25.01	1,200.00
Class of 1910 Endowment Fund (income for the benefit of the class)	85.91	1,350.00
Class of 1911 Endowment Fund (income for the benefit of the class)	2.90	600.00
Class of 1911 Loan Fund	1.93	401.93
P. Charles Cole Scholarship Fund	129.38	2,130.69
Thérèse F. Colin European Fellowship Fund (given by Professor Thérèse F. Colin for European study in French)	110.44	10,961.94
Consolidated Perpetual Endowment Fund (sale of lands under Federal and State Grants, savings of income, etc.)	129,856.99	2,062,692.18
Emily Chamberlain Cook Prize Fund (given by Professor Albert S. Cook as a memorial to his wife, for an an- nual prize for a poem)	67.00	1,069.84
E. A. Denicke Library Fund (given by former Regent Ernst A. Denicke)	63.63	1,000.00
Dental Endowment Fund	279.86	4,608.95
Doe Library Fund (bequeathed by Chas. Franklin Doe, subject to expenditures for building up to June 30, 1911, of \$672,338.38)	10,359.25	740,402.41
Doe Library Completion and Equipment Fund (set aside out of Permanent Building Fund moneys)	812.80	20,971.89
Cora Jane Flood Endowment Fund (gift of Miss Flood for the College of Commerce)	29,699.37	336,300.36
James M. Goewey Scholarship Fund	286.99	4,510.00
Grubstake "W" Loan Fund (given by anonymous friend)	5.15	361.69
Hamerslag Loan Fund (income only to be used for loans to students)	373.34	6,000.00
Charles M. Hitchcock Endowment Fund (for lectures upon scientific and practical subjects)	636.34	10,000.00
Cornelius B. Houghton Scholarship Fund	190.91	3,000.00
Albert Sidney Johnston Memorial Scholarship Fund	191.26	3,500.00
<i>Carried forward</i>	\$174,416.94	\$3,231,826.75

PRESIDENT'S BIENNIAL REPORT

	Income for 1910-11	Balance June 30, 1911
<i>Brought forward</i>	\$174,416.94	\$3,231,826.75
Jucksch donation (gift of Mary Jucksch; the income is used for purchase of books in American History)	61.33	600.00
Kearney Bequest* (cash)		831.57
Martin Kellogg Fellowships Endowment Fund (given by Mrs. Martin Kellogg for fellowships at the Lick Observatory)	600.00	20,000.00
Leona Lebus Endowment Fund (given by Mrs. Martha C. Lebus, in fulfillment of the will of her daughter, Miss Leona Lebus; the income is for the care at the University of California Hospital of chronic cases, preferably non-residents of San Francisco)	254.54	4,000.00
LeConte Memorial Fellowship Fund (given by the Alumni Association in memory of John and Joseph LeConte)	638.03	10,026.47
Lick Observatory Fund (balance remaining of the bequest of James Lick after erection and equipment of the Observatory)	5,808.20	90,018.16
John W. Mackay, Jr., Endowment Fund (given half by Mrs. John W. Mackay and half by Clarence Hungerford Mackay as an endowment for electrical engineering)	6,363.38	100,000.00
Massachusetts Relief Fund (moneys given by the citizens of Massachusetts for relief after the San Francisco fire of 1906, and, by their request, granted by the San Francisco Relief and Red Cross funds for the endowment of the University of California Hospital)....	6,363.38	100,000.00
Medal Loan Fund (proceeds from the sale of University medals refused by Joseph B. Garber, class of 1892; Miss Katherine Felton, class of 1895; and Mr. Arthur M. Seymour, class of 1891, the medalists of their respective classes)	5.89	234.12
Men's Dormitory Fund (given by the students, etc.)	22.31	367.47
Eugene Meyer, Jr., Library Endowment Fund for historical books)	41.73	2,000.00
D. O. Mills Endowment Fund (given by D. O. Mills for the endowment of a Professorship of Intellectual and Moral Philosophy and Civil Polity)	10,057.33	158,050.08
Paget Scholarship Fund (bequeathed by Mme. Emmanuel Marie Paget for the Professor F. V. Paget Scholarship for a student in French)	191.48	3,009.09
Philo Sherman Bennett Prize Fund (given by Wm. Jennings Bryan, for an essay on the Principles of Free Government)	32.47	542.72
Frank M. Pixley Scholarship Fund (bequeathed by Amelia V. R. Pixley for a scholarship for a student in law)....	226.75	3,563.22
<i>Carried forward</i>	\$205,083.76	\$3,725,119.65

* \$25,000 was received in cash from the distribution of the M. Theo. Kearney Estate. Certain claims, etc., against the estate have been liquidated out of this amount. Whatever balance has been in this fund has been loaned to the Kearney Vineyard without interest.

BALANCE SHEET—SCHEDULES

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	Income for 1910-11	Balance June 30, 1911
<i>Brought forward</i>	\$205,083.76	\$3,725,119.65
Prytanean Hospital Fund (gift by Prytanean Society for the equipment of the Student Infirmary)	41.29	718.19
Michael Reese Library Fund (gift of Michael Reese, income used for purchase of books)	3,181.70	50,000.00
Richardson Latin Translation Prize Fund (bequeathed by Professor George Morey Richardson, income for prize in Latin translation)	11.20	1,600.00
Hermann Royer Endowment Fund (bequeathed by Hermann Royer for founding a professorship in Political Economy)	222.21	3,659.37
Sheffield Sanborn Scholarship Fund (given by Mrs. James Horsburgh, Jr., to endow one scholarship in medicine and one in law at Berkeley and one in law at the Hastings College of Law)	954.51	15,000.00
Jane K. Sather Chair Fund (the gift of Mrs. Jane K. Sather for the endowment of a chair of Classical Literature)	4,327.35	70,805.00
Jane K. Sather Law Library Fund (the gift of Mrs. Jane K. Sather; income to be devoted to support a law library)	1,534.99	24,122.35
Jane K. Sather Library Fund (the gift of Mrs. Jane K. Sather; income to be devoted to support a law library)	636.34	10,000.00
Willard D. Thompson Memorial Scholarship Fund (the gift of Mrs. Jennie D. Thompson, as a memorial to her son, Willard D. Thompson, '94, the income to be used for scholarships for students from the State of Utah)	3,098.86	51,725.73
Edward Tompkins Endowment Fund (the gift of Edward Tompkins for the foundation of the Agassiz Professorship of Oriental Languages and Literature)	3,349.80	87,572.45
University Hospital Endowment Fund	41.33	649.68
University Hospital Endowment Fund (J. B. Reinstein)		1,000.00
University Hospital Endowment Fund (given by the San Francisco Maternity)	636.34	10,000.00
University Medal Fund (given by friends of the University of California; the income to be used to give a medal to the most distinguished scholar of each year)	247.91	3,896.00
Veltin Endowment Fund (given by students of the Veltin School; the income to be used for the Student Infirmary)	50.91	800.00
Frank J. Walton Memorial Loan Fund (given by the Class of 1883 as a memorial to their classmate; the income only from this fund is to be loaned to students; when the fund shall exceed the sum of \$20,000 scholarships at Berkeley may be established out of the surplus)	322.49	5,722.07
Barbara Weinstock Lectureship Fund (the gift of Colonel H. Weinstock, in memory of his mother, for an annual lecture on "The Morals of Trade")	325.00	5,000.00
<i>Carried forward</i>	\$224,065.99	\$4,067,390.49

	Income for 1910-11	Balance June 30, 1911
<i>Brought forward</i>	\$224,065.99	\$4,067,390.49
Whiting Fund (bequeathed by Professor Harold Whiting; the income to be expended for the benefit of the De- partment of Physics)	1,431.74	22,500.00
J. Clute Wilmerding Endowment Fund (bequeathed by J. Clute Wilmerding for the establishment and endow- ment of the Wilmerding School of Industrial Arts)	29,584.03	449,000.00
	<u>\$255,081.76</u>	<u>\$4,538,890.49</u>

NOTE.—The relation between the total endowments and the total investments as appearing in the balance sheet is shown as follows:

Investments	\$3,467,003.88	
Loss on Montgomery avenue bonds (litigation now in progress to recover this amount)	21,999.00	
Expended to June 30, 1911, on the new University Li- brary Building from the Doe bequest	672,338.38	
Endowment Fund moneys loaned at interest to the Perma- nent Building Fund	195,746.52	
Endowment Fund moneys loaned at interest to the Gen- eral Fund	254,626.42	
	<u>\$4,538,890.49</u>	\$4,611,714.20
Endowment Funds		
Gains in Endowment Pool Investments	72,823.71	
	<u>72,823.71</u>	<u>4,611,714.20</u>

I. BALANCES ON HAND IN FUND INTEREST ACCOUNTS, WHICH ARE USED FOR SPECIFIC PURPOSES

Class of 1874 Library Fund	\$12.00
Class of 1897 Library Fund	29.06
Class of 1900 Library Fund	33.70
Class of 1902 Library Fund	26.44
Class of 1907 Permanent Endowment Fund (for the purchase of books)	9.23
Emily Chamberlain Cook Prize Fund	50.00
E. A. Denicke Library Fund	118.30
*Cora Jane Flood Endowment Fund	9,941.47
James M. Goewey Scholarship Fund	394.32
Hamerslag Loan Fund	373.34
Charles M. Hitchcock Endowment Fund	950.39
Cornelius B. Houghton Scholarship Fund	369.93
Albert Sidney Johnston Memorial Scholarship Fund	16.26
Jucksch Endowment Fund	30.20
LeConte Memorial Fellowship Fund	481.02
John W. Mackay, Jr., Endowment Fund	7,956.19
Eugene Meyer, Jr., Library Fund	41.73
Professor F. V. Paget Scholarship Fund	140.98
Frank M. Pixley Scholarship Fund	115.46
<i>Carried forward</i>	<u>\$21,090.02</u>

* To be added to the Principal of Funds.

<i>Brought forward</i>	\$21,090.02
Michael Reese Library Fund	373.93
Richardson Latin Translation Prize Fund	11.20
Sheffield Sanborn Scholarship Fund	423.37
Jane K. Sather Library Fund	1,048.62
Willard D. Thompson Memorial Fund	2,918.86
University Medal Fund	720.54
Veltin Endowment Fund	209.50
Barbara Weinstock Lectureship Fund	1,528.41
Whiting Fund	2,291.04
J. Clute Wilmerding Endowment Fund	8,606.66
	<hr/>
	\$39,222.15

J. BALANCES ON HAND IN DONATION ACCOUNTS

Agassiz donation	\$97.30
Belladonna Research, donation for	75.00
Boalt Hall of Law, donations for building (this is subject to expenditures for the erection of building, which has cost up to June 30, 1911, \$157,667.54)	97,110.80
Bonnheim Prize	105.00
Carnegie Institution, donation for Lick Observatory	1,237.47
Class of 1910, donation for bridge over Strawberry Creek	1,419.23
Ethel W. Crocker, donation for Mexican Archaeological Research	1,037.66
Ethel W. Crocker, donation for Physiological books	734.87
William H. Crocker, donation to Lick Observatory for apparatus	750.00
Dental Department Library Fund	17.70
Margaret B. Fowler, donation for Zoology	294.40
Girton Hall, donations for	2,924.88
Gown Fund (for purchase of a President's academic gown)	84.77
Greek Theatre, donations for marble chairs	292.66
Mrs. Hearst, donation for publications	1,000.00
William Randolph Hearst, donation to Lick Observatory for earthquake apparatus	9.53
Dr. M. Herzstein, donation for Physiological Laboratory	775.76
E. C. Hutchinson, donation for books	60.00
Mary Lake Memorial, donation for books	621.77
Lick Observatory, donation for publication of Dr. E. E. Barnard's photographs	1,214.50
D. O. Mills, donation to Lick Observatory for Southern Hemisphere Expedition	3,232.65
James K. Moffitt, donation for books	402.03
Palaeontology, donation by a friend	57.85
Richardson donation for books	50.00
Sather Gateway donation, balance on hand	7,554.41
Scholarship for Tracy Crane	125.00
Spinello Library donation	46.91
Claus Spreckels, donation for books	668.49
Levi Strauss Scholarships	62.50
Student Infirmary, donations for	691.31
	<hr/>
<i>Carried forward</i>	\$122,754.45

<i>Brought forward</i>	\$122,754.45
Tennis Courts, donations for building of new	238.00
Caroline Thorsen, donation for Anatomy books	14.99
University Fellowship in Academy of Pacific Coast History, donation by Native Sons of the Golden West	500.00
University Hospital, donation for diet kitchen of	173.44
	<hr/>
	\$123,680.88

K. BALANCES ON HAND TO BE USED FOR SPECIFIC PURPOSES

Library Exchange	\$64.69
Adams Fund—Sales	82.04
California Educational Butter Scoring Contest	184.53
Fertilizer Control	6,304.86
Fungicide and Insecticide Control—Registrations	1.00
Poultry Experiment Station—Sales Fund	192.58
University Farm: Creamery sales	2,239.47
University Farm: Poultry sales	509.35
University Farm: Sales Fund	1,657.83
University Farm: Stock Sales Fund	1,245.90
University Farm: Students' deposits	684.49
University Farm: Veterinary sales	44.75
Sale of a brief account of Lick Observatory	516.46
Sale of Keeler Volume	131.85
Sale of Miss Shinn's Pamphlet	110.96
Sale of Tebtunis Papyri	351.72
Sale of Zoe	25.57
Music and Dramatic events	1,664.57
State Appropriation: Affiliated Colleges (improvement of grounds)	326.95
Summer Session Fees:	
*Summer Session	\$21,186.53
Home Economics	185.00
Manual Training	93.00
Psychology	2.00
	<hr/>
	21,466.53
	<hr/>
	\$37,806.10

L. SUNDRY CREDITORS

Sundry Vouchers (bills approved for payment)	\$102,429.19
Treasurer's Advances (bills already paid by Treasurer's advance checks)	65,693.96
Mrs. Jane K. Sather:	
Sather Chair Fund Interest	\$122.56
Sather Law Library Fund Interest	2.90
	<hr/>
	125.46
Mrs. Thérèse F. Colin, European Fellowship Interest	4.19
Rents paid in advance	559.39
	<hr/>
<i>Carried forward</i>	\$168,812.19

* In addition to these certain fees will be retained from Chemistry and Physics.

BALANCE SHEET—SCHEDULES

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<i>Brought forward</i>	\$168,812.19
Deposits on plans	85.00
Deposit on Faculty shower keys	8.50
Certified checks accompanying bids, returnable to contractors	395.00
Sundry Creditors	1,572.75
Students' Deposits:	
Agriculture	\$74.95
Bacteriology	55.40
Botany	3.75
†Chemistry	2,375.96
Civil Engineering	49.00
Dairy	17.00
Diplomas	4,257.10
Histology	5.00
Key rental	5.00
Library	640.00
Mechanics	323.25
Mineralogy	3.00
Mining	153.44
†Physics	992.95
Physiology	30.10
Zoology	159.20
Summer Session: Civil Engineering Commissary Account..	1,247.73
Zymology	14.45
	<hr/>
	10,407.28
Class of 1907 Permanent Endowment Fund Interest (payable to permanent Secretary of class)	31.39
Class of 1909 Permanent Endowment Fund Interest (payable to permanent Secretary of class)	3.39
Class of 1910 Permanent Endowment Fund Interest (payable to permanent Secretary of class)	7.14
Class of 1911 Permanent Endowment Fund Interest (payable to permanent Secretary of class)	2.90
	<hr/>
	<u>\$181,325.54</u>

† Some portion of these will be ultimately credited to Summer Session.

UNIVERSITY OF CALIFORNIA—BALANCE SHEET, JUNE 30, 1911

Letters refer to Preceding Schedules

ASSETS		LIABILITIES	
Real Estate and Improvements:		University of California (representing University property in general other than that held for investment purposes)	\$7,821,769.37
A.—Real Estate in Berkeley	\$1,400,129.65	H.—Endowment Fund Accounts	4,538,890.49
B.—Buildings and Improvements in Berkeley	2,985,502.88	I.—Fund Interest Accounts: Balances on hand of the income of endowments	39,222.15
C.—Real Estate and Improvements not in Berkeley	2,871,213.28	J.—Donation Accounts: Unexpended balances of donations	123,680.88
D.—Investments:		K.—Balances on hand restricted to use for specific purposes	37,806.10
Bills Receivable	\$1,454,575.69	L.—Sundry Creditors	181,325.54
Notes (Regents' own watershed notes bought in)	19,840.44	Bills payable: Watershed lands	20,000.00
Bonds	1,064,971.00	Losses and gains in Endowment Pool investments (increase in the valuation of properties in which Endowment Pool moneys have been invested)	72,823.71
Stocks	101,852.00	Revenue (surplus in General Fund, June 30, 1911)	41,657.45
Real Estate and Improvements held as investments	824,664.75		
Contract for sale of lands	1,100.00		
See note at foot of page 450 as to relation between endowments and investments.			
E.—Departmental accounts and other expenditures carried forward as a charge against 1911-1912	3,467,003.88		
F.—Amounts due from the State of California under various appropriations	129,584.03		
Permanent Building Fund (expenditures carried forward as a charge against the Permanent Building Fund for 1911-1912)	136,046.98		
Sundry Debtors	26,032.06		
G.—Suspense Accounts	39,169.92		
Losses in Investments:	59,289.37		
Montgomery avenue Bonds	\$21,999.00		
Highland Tract Lots	156.29		
Carried forward	\$1,136,127.34	Carried forward	\$12,877,175.69

BALANCE SHEET

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<i>Brought forward</i>		\$1,136,127.34	\$12,877,175.69
W. A. McKowen Defalcation		44,120.10	
Equipment:			
General	\$1,231,270.97		
Bancroft Library	250,005.00		
		1,481,275.97	
Cash:			
I. W. Helman, Jr., Treasurer.....	\$204,130.72		
Cash in hands of departments, deposited with Treasurer after June 30, 1911	1,376.56		
Contingent Funds	9,550.00		
Certified Checks (accompanying bids)	395.00		
Wells, Fargo & Co., deposit ac- count	200.00	215,652.28	
			\$12,877,175.69

SUMMARY OF INCOME

YEAR ENDING JUNE 30, 1912

From Investments	\$186,760.59		
United States	80,000.00		
State of California	1,124,507.19		
		\$1,391,267.78	
Students' Fees	\$118,521.63		
Dental Department	19,367.77		
Medical Department	11,156.78		
University Hospital	29,242.09		
Los Angeles Medical Department	4,118.19		
Sale of agricultural produce, etc.	120,284.72		
Miscellaneous	15,023.53		
Receipts from concerts, etc.	2,391.30		
		320,106.01	\$1,711,373.79
Gifts for current use	\$67,216.30		
Gifts for architectural expenses and for building work	16,418.56		
		83,634.86	1,795,008.65
Gifts of real estate and improvements	\$31,449.58		
Gifts for endowments	450,943.94		
		482,393.52	2,277,402.17
Turning over of funds (as repayment of loans, students' deposits due to be returned, etc.)		1,053,289.36	
		\$3,330,691.53	

SUMMARY OF EXPENDITURES

YEAR ENDING JUNE 30, 1912

Administration	\$275,582.37		
Library	78,563.23		
Agriculture (excluding building opera- tions appearing under that head).....	338,568.77		
Other departments	560,938.07		
Miscellaneous	16,388.66		
		\$1,270,041.10	
Scholarships and Prizes	\$21,437.50		
Summer Session	31,634.97		
Lick Observatory	46,668.12		
Dental Department	23,737.43		
Medical Department (including University Hospital and Los Angeles Medical De- partment	77,566.34		
		201,044.36	\$1,471,085.46
Musical and Dramatic	\$2,231.57		
Academy of Pacific Coast History	6,087.82		
		8,319.39	1,479,404.85
Carried forward		\$1,479,404.85	\$1,479,404.85

<i>Brought forward</i>	\$1,479,404.85	\$1,479,404.85
Watershed lands: Purchase of lands in Strawberry Cañon	1,455.90	1,480,860.75
Building operations	398,643.78	1,879,504.53
Wilmerding Trades School	30,519.07	1,910,023.60
Turning over of funds (as loans, repayment of students' deposits, etc.)	1,180,299.16	
	<u>\$3,090,322.76</u>	

INCOME AVAILABLE FOR GENERAL EDUCATIONAL,
ADMINISTRATIVE, AND SCIENTIFIC
PURPOSES IN 1911-12

Total income available for current use:		
Investments	\$186,760.59	
United States	80,000.00	
State of California.....	1,124,507.19	
	<u></u>	\$1,391,267.78
Students' Fees	118,521.63	
Dental Department	19,367.77	
Medical Department	11,156.78	
University Hospital	29,242.09	
Los Angeles Medical Department.....	4,118.19	
Sale of Agricultural Produce etc.....	120,284.72	
Miscellaneous	15,023.53	
Receipts from Concerts, etc.....	2,391.30	
	<u></u>	320,106.01
Gifts for current use.....		67,216.30
		<u>\$1,778,590.09</u>

Deduct:	
Permanent Building Fund moneys	\$190,131.92
Wilmerding School (expenditures)	30,519.07

Income on Endowment added to principal:

Alumni Association Life Membership Fund	\$210.58
Alumni Hall Fund.....	510.14
Bennett Prize Fund.....	31.63
Class of 1881 Loan Fund.....	27.56
Class of 1886 Loan Fund.....	188.08
Class of 1895 Loan Fund.....	51.26
Class of 1898 Loan Fund.....	3.44
Class of 1903 Loan Fund.....	31.07
Class of 1905 Fund	5.90
Class of 1908 Fund	14.29
Cole Scholarship Fund.....	125.98
Cook Prize Fund.....	17.35
E. A. Denicke Loan Fund.....	188.61

<i>Carried forward</i>	\$1,405.49	\$220,650.99	\$1,778,590.09
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PRESIDENT'S BIENNIAL REPORT

Brought forward	\$1,405.49	\$220,650.99	\$1,778,590.09
Dental Endowment Fund.....	272.51		
Doe Library Fund.....	7,094.86		
Grubstake "W" Loan Fund	349.66		
Hamerslag Loan Fund.....	349.66		
Medal Loan Fund.....	12.33		
Men's Dormitory Fund.....	21.73		
Napa Seminary Loan Fund.....	8.32		
Prytanean Hospital Fund.....	46.19		
Royer Endowment Fund.....	216.36		
Sather Classical Chair Fund.....	2,918.79		
Sather Historical Chair Fund.....	2,918.79		
Sather Fund awaiting distribution...	7,445.07		
Special Senior Class Loan Fund.....	18.35		
Students' Co-operative Society.....	306.95		
Walton Loan Fund.....	309.55		
Women's Dormitory Fund.....	45.13		
		23,401.48	
Income payable to Class Secretaries:			
Class of 1909 Loan.....	\$59.10		
Class of 1910 Fund.....	78.67		
Class of 1911 Fund.....	75.11		
Class of 1912 Fund.....	15.79		
Alumnae Y. W. C. A.....	14.58		
Y. W. C. A. Fund.....	122.22		
		365.47	
Receipts from Concerts.....		2,391.30	
State Appropriations:			
Los Angeles Medical Dept. Building	\$4,675.60		
Chico Forestry Station, Barn and			
Fence	874.90		
University Farm	121,235.11		
Hog Cholera Serum	8,959.88		
Insecticides and Fungicides	4,980.14		
Farmers' Institutes	15,000.00		
Southern California Buildings and			
lands	14,352.67		
		170,078.30	
Students' Fees, Summer School of Surveying.....		2,800.00	
Students' Fees, Summer School of Surveying Com-			
missary		4,140.00	423,827.54
Available for current educational, scientific and administrative			
purposes			\$1,354,762.55
Deduct also:			
Dental Department Expenditures	\$23,737.43		
Medical Department Expenditures, including Uni-			
versity Hospital and Los Angeles Medical Dept...	77,167.90		
Anthropology Department Expenditures.....	10,780.37		
Lick Observatory Expenditures.....	\$31,870.20		
Lick Observatory, receipts from donations	10,400.00		
		42,270.20	
Carried forward		\$153,955.90	\$1,354,762.55

<i>Brought forward</i>	\$153,955.90	\$1,354,762.55
Sale of Keeler Volume (Receipts)	57.15	
State Appropriations:		
Cereal Investigation (Receipts)	\$7,500.00	
Imperial County Investigation (Receipts)	11,098.92	
Plant Diseases, Northern (Receipts)	7,771.14	
Viticulture (Receipts)	7,500.00	
Southern California Pathological Laboratory and Equipment (Receipts)	21,132.29	
	<hr/>	55,002.35
Donations for University Hospital	725.00	
Sales Funds:		
University Farm	\$79,591.10	
Cereal Produce	1,751.84	
Hog Cholera Serum	9,888.57	
Southern California Pathological Laboratory	1,210.63	
Viticultural Produce	197.28	
	<hr/>	92,639.42
California Educational Butter Scoring Contest	521.35	302,901.17
	<hr/>	<hr/>
Available at Berkeley for general educational, scientific and administrative purposes		<u>\$1,051,861.38</u>

INCOME

JULY 1, 1911, TO JUNE 30, 1912

Income on Investments:		
Interest on mortgage and collateral loans	\$78,578.85	
Interest on loans to students from endowed loan funds	190.24	
	<hr/>	\$78,769.09
Interest on bonds:		
State bonds (from the State)	\$45,060.00	
Diverted funds: from the State (see act approved March 3, 1893, Stats. 1893:75, and also amendment Stats. 1899:93)	4,785.00	
Bear Gulch Water Company (two coupons accrued, due January, 1912, and July, 1912)	8,200.00	
Bohemian Club	45.00	
Oakland Traction Consolidated	750.00	
Pacific Gas and Electric Company	60.27	
Sacramento Gas and Electric Company	50.00	
Southern Pacific Railroad, 1st Refunding 4's	1,320.00	
Tonopah United Water Company	1,200.00	
	<hr/>	61,470.27
<i>Carried forward</i>		<u>\$140,239.36</u>

Brought forward		\$140,239.36
Dividends on stocks:		
Bank of California	\$1,000.00	
Fireman's Fund Insurance Co.	1,400.00	
Kennedy Mining and Milling Co.	3,300.00	
Mackay Companies: Preferred	2,816.00	
University Land Co.	75.00	
Weinstock-Lubin Real Estate Co.: Preferred.....	325.00	
		8,916.00
Dividends on Savings Bank Deposits, etc.		
First Federal Trust Co., of San Francisco	\$328.81	
Central Savings Bank of Oakland	559.01	
Interest on Certificates of Deposit turned over to the University of California by the Class of 1912	10.00	
		897.82
Rents:		
University Cottages, Palmer House and 2642 Sylvan Way (after deduction of structural and other repairs)	\$970.66	
Watershed Lands:		
Such Ranch	418.50	
Grazing Land (Stanley)	75.00	
Seaman Cottage	15.00	
House on Lot 5, University Heights	3.00	
1615 Sixth street, West Berkeley	64.01	
Broadway Terrace lots, Oakland	10.00	
Fresno County Lands	10.00	
Potrero avenue lots, San Francisco	120.00	
San Luis Obispo County Lands	48.87	
Wilmerding School vacant block and shops	1,880.00	
Flood lands, Menlo Park (Henry Nelson)	1,246.00	
Lick Observatory lands (R. F. Morrow).....	80.00	
Thompson lot on Dearborn street, Chicago	3,000.00	
First street Building, San Francisco, leased to Blake, Moffitt & Towne (after allowing for \$41.30 for repairs to roof)	10,902.10	
Rent of room at First and Market street, San Francisco	5.00	
14th and Washington streets, Oakland, net rental from December to June inclusive (Gross Re- ceipts \$15,064.60, less repairs and commissions \$904.12)	14,160.48	
		33,008.62
Interest at 2 per cent per annum on daily balances in hands of Treasurer		6,186.91
		\$189,248.71
Less proportion of income in Endowment Pool, due to Mrs. Jane K. Sather	\$2,403.74	
Less proportion of income in Endowment Pool, due to Madame Thérèse F. Colin	84.88	
		2,488.12
Carried forward		\$186,760.59

<i>Brought forward</i>		\$186,760.59	
United States:			
Morrill College Aid Fund	\$50,000.00		
Agricultural Experiment Station (Hatch Fund).....	15,000.00		
Adams Fund	15,000.00		
			80,000.00
State of California:			
Three-fourths of the State University Fund (tax of three cents on each \$100 of assessed valuation): remaining one-fourth is devoted to Permanent Improvements and appears under that head. (Total income from the three-cent tax was \$760,527.70)			
		\$570,395.78	
General Appropriation: "For the Support of the University"	100,000.00		
Special Appropriations for Agriculture:			
Cereal Investigation	\$7,500.00		
Farmers' Institutes	15,000.00		
Hog Cholera Serum	8,959.88		
Imperial County Investigations.....	11,098.92		
Insecticides and Fungicide Control...	4,980.14		
Plant Diseases, Northern appropriation 1909	271.14		
Plant Diseases, Northern appropriation 1911	7,500.00		
Southern California Pathological Laboratory	20,003.54		
Southern California Pathological Laboratory Equipment	1,128.75		
Whittier Barn and Workshop	993.64		
Whittier Heating Plant	347.54		
Whittier, Enlargement of plant.....	3,971.31		
Riverside Buildings and Lands.....	9,040.18		
University Farm:			
Deficiency, appropriation for.....	12,289.37		
Buildings	41,950.81		
Equipment	6,068.96		
Implements	974.68		
Improvement of Grounds.....	2,356.51		
Light, Power, Water, and Sewer	1,884.04		
Livestock	5,319.90		
Salaries	27,074.92		
General Support	23,315.92		
Viticulture	7,500.00		
Chico Forestry Station Barn.....	499.90		
Chico Forestry Station Fence.....	375.00		
		220,405.05	
Los Angeles Medical Department Hospital	4,675.60		
<i>Carried forward</i>	\$895,476.43	\$266,760.59	

<i>Brought forward</i>	\$895,476.43	\$266,760.59
Music	2,998.22	
Reimbursement for loss of income	31,000.00	
Printing	4,900.62	
		<hr/> 934,375.27

NOTE.—The total received (and receivable) from the State of California was \$1,124,507.19, composed of the above figure of \$934,375.27 and Permanent Building Fund, \$190,131.92.

The total of the appropriations for the University Farm is \$121,235.11, of which \$62,680.21 is for maintenance and support, and \$58,554.90 for buildings, equipment, and improvements.

Students' Deposits and Fees (net):

Deposits (balances retained for laboratory charges):

Agriculture	\$586.50
Anatomy, Summer Session, 1912....	60.00
Astronomy	307.50
Bacteriology	785.98
Botany	713.75
Botany (Summer Session, 1911)....	97.50
Botany (Summer Session, 1912)....	160.00
Chemistry	11,665.22
Chemistry (Summer Session of 1911)	55.00
Chemistry (Summer Session of 1912)	1,470.00
Civil Engineering	3,156.50
Home Economics (Summer Session of 1911)	102.25
Home Economics (Summer Session of 1912)	394.00
Manual Training (Summer Session of 1911)	284.78
Manual Training (Summer Session of 1912)	406.75
Mechanics	2,337.95
Mineralogy	277.50
Mining	1,299.75
Montessori Method (Summer Session of 1912)	40.00
Physics	4,427.10
Physics (Summer Session of 1911)	86.25
Physics (Summer Session of 1912)	420.00
Physiology	125.15
Physiology (Summer Session of 1912)	12.50
Psychology (Summer Session of 1911)	14.00
Public Health (Summer Session of 1912)	250.00

Carried forward \$29,535.93

\$1,201,135.86

INCOME

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<i>Brought forward</i>	\$29,535.93	\$1,201,135.86
Zoology	1,397.50	
Zoology (Summer Session of 1911)	59.50	
Zoology (Summer Session of 1912)	12.50	
Zymology	11.50	
	<hr/>	
	\$31,016.93	
Fees:		
Changing Courses	\$275.50	
Delayed Registration for Courses....	922.00	
Gymnasium	14,578.75	
Infirmary	22,321.20	
Medicine (Summer Session of 1911)	10.00	
Non-resident (for students from out- side California)	4,555.00	
Special Examinations	1,950.00	
Summer School of Surveying.....	2,800.00	
Summer School of Surveying (Com- missary Account)	4,140.00	
Summer Session, 1911	5,285.50	
Summer Session, 1912	30,666.75	
	<hr/>	
	87,504.70	
	<hr/>	
		118,521.63
Dental Department: Fees and miscellaneous receipts, exclusive of of donations		19,367.77
Medical Department: Fees and miscellaneous receipts		11,156.78
Los Angeles Medical Department: Fees and miscellaneous receipts.....		4,118.19
University Hospital in San Francisco: Miscellaneous receipts, exclusive of donations		29,242.09
Sale of Agricultural Produce, etc.:		
License fees and tax for inspection of commercial fertilizers	\$15,970.43	
License Fees for Sale of Insecticides.....	1,242.35	
California Educational Butter Scoring Contest	521.35	
Sale of Adams Fund produce	32.50	
Sale of Agricultural produce	33.79	
Sale of Cereal produce	1,751.84	
Sale of Dairy produce	9,769.10	
Sale of Dairy cattle	11.64	
Sale at Forestry Station	3.50	
Sale of Hog Cholera Serum	9,888.57	
Sale of Dead Hogs	60.24	
Sale of Southern California Pathological Laboratory produce	1,210.63	
Sale of Viticultural produce	197.28	
	<hr/>	
	40,693.62	
University Farm:		
Creamery	\$49,945.51	
Dormitory	13,159.50	
	<hr/>	
<i>Carried forward</i>	\$63,105.01	\$40,693.62
		<hr/>
		\$1,383,542.32

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$63,105.01	\$40,693.62	\$1,383,542.32
Poultry sales	1,824.99		
Stock sales, Livestock	3,333.90		
Stock sales, Milk, etc.	1,522.45		
Stock sales, Wool, etc.	141.50		
Students' deposits	2,351.45		
General produce	7,176.27		
Veterinary sales	62.00		
Shop sales	73.53		
		79,591.10	120,284.72
<i>Miscellaneous:</i>			
<i>Printing and Publishing:</i>			
Charges for work done by Printing			
Office	\$1,026.50		
Sale of Publications	2,828.24		
Sale of Syllabus	6.65		
Sale of Weinstock Lectures	19.52		
Sale of Political Science Syllabus...	23.65		
Sale of University Extension Sylla-			
bus	5.40		
Sale of Keeler Volume	57.15		
Sale of "Zoe"	9.00		
Sale of Academy of Pacific Coast			
History Publications	151.06		
		\$4,127.17	
<i>Chemistry Department:</i>			
Use of chemicals	\$20.00		
Analyses	255.00		
Chemicals sold	52.40		
		327.40	
<i>Civil Engineering Department:</i>			
Tests made, etc		635.35	
<i>Dental Department:</i>			
Refund by Gas and Electric Co.		6.32	
<i>Library:</i>			
Sale of Books and Periodicals		69.07	
Sale of wood, lumber, junk, etc.		187.95	
Military belts		6.64	
Reimbursement for labor, materials, light, and water		4,695.95	
Reimbursement for postage, stenographic work, etc...		791.14	
Library Fines		50.40	
Examination of Schools		175.00	
Infirmary Receipts for operations, laundry, prescrip-			
tions, etc.		2,431.00	
Duplicate Diplomas		35.00	
<i>Carried forward</i>		\$13,538.39	\$1,503,827.04

<i>Brought forward</i>	\$13,538.39	\$1,503,827.04
Anthropology: Contingent fund in hands of the head of the department, heretofore treated as paid out of departmental budget	129.63	
Interest on notes given by Students for Operations at Infirmary	5.86	
Wilmerding School: Director's receipts	1,349.65	
	<hr/>	15,023.53
Receipts from Musical and Dramatic events		2,391.30

Gifts for current use:

Mrs. Hearst:		
Phoebe A. Hearst Scholarships.....	\$2,400.00	
Anthropology, for Salaries	1,680.00	
Anthropology, for Erection of Totem Pole	500.00	
Anthropology, for Fireproofing Museum	158.40	
Anthropology, for Reconstruction of Museum	691.29	
Hearst Memorial Mining Building equipment	2,186.48	
	<hr/>	7,616.17

See also under "For the Lick Observatory" and under "Donations for Erection of Buildings, etc."

Scholarships:

(Mrs. Hearst as above).

(The State of California Scholarships are supported by \$3,500 from the State University Fund).

Catherine Allen Scholarship	\$250.00	
San Jose High School Scholarship....	375.00	
Levi Strauss Scholarship (the gift of Levi Strauss & Co.).....	3,500.00	
F. M. Smith Fellowship	1,500.00	
University Fellowship Academy of Pacific Coast History, per Native Sons of the Golden West	3,750.00	
	<hr/>	9,375.00

Prizes:

Bonnheim Prize	\$250.00	
Bryce Historical Essay Prize	100.00	
W. C. T. U. Essay Prize	50.00	
	<hr/>	400.00

Astronomy:

Academy of Arts and Sciences	2,100.00	
	<hr/>	
<i>Carried forward</i>	\$19,491.17	\$1,521,241.87

<i>Brought forward</i>		\$19,491.17	\$1,521,241.87
Library donations for current use:			
History 1A, Class in	\$1,000.00		
J. F. Fugazi, for Architectural Books	100.00		
Library Exchange account	7.60		
For Irish Books	100.00		
		1,207.60	
Salary of Advisor		100.00	
For a bronze bust of Prof. Hilgard: various small donations		484.85	
For the Lick Observatory:			
Wm. H. Crocker: for apparatus.....	\$600.00		
Mrs. Hearst: swimming pool	800.00		
Estate of D. O. Mills: Southern Hemisphere Expedition	9,000.00		
		10,400.00	
Agriculture:			
For Investigation of Nitrogen Fertilizers, per W. S. Myers	\$300.00		
For Investigation of Lima Bean	100.00		
		400.00	
University Hospital in San Francisco:			
For erection of incinerator	\$225.00		
For X-Ray apparatus	500.00		
		725.00	
Palaeontological Research: A friend		2,400.00	
Summer Session, 1911: towards a salary, by V. H. Henderson		41.67	
Zoology:			
For salaries (assistance in working up results of the Agassiz Expedition to the South Seas): Prof. Alexander Agassiz	\$600.00		
San Diego Marine Biological Laboratory Association	1,999.92		
Miss Annie M. Alexander: for the California Museum of Vertebrate Zoology	11,889.09		
		13,989.01	
Carnegie Foundation for the Advancement of Teaching: Retiring Allowance for:			
G. H. Howison, Philosophy	\$2,875.00		
F. Soule, Civil Engineering	2,045.00		
I. Flagg, Greek	1,600.00		
A. Putzker, German	1,500.00		
<i>Carried forward</i>	\$8,020.00	\$49,239.30	\$1,521,241.87

<i>Brought forward</i>	\$8,020.00	\$49,239.30	\$1,521,241.87
R. H. Loughridge, Agriculture	1,420.00		
Sarah F. L. Rising (widow of W. B. Rising), Chemistry	1,035.00		
Martha S. D. Stringham (widow of Irving Stringham), Mathematics	960.00		
C. B. Bradley, English	1,750.00		
Bernard Moses, Political Science	2,400.00		
		15,585.00	
Academy of Pacific Coast History		2,392.00	
(These gifts to the Academy were handled by the University as custodian of the funds in behalf of the Academy.)			
			67,216.30
<i>Donations for Erection of Buildings, etc.:</i>			
Boalt Hall of Law		\$9,065.00	
Erection of Tennis Courts		57.50	
Marble Chairs in Greek Theatre		925.00	
Girton Hall: Women's Senior Hall		1,042.34	
Mrs. Hearst: for grading around the Hearst Memorial Mining Building		1,500.00	
Mrs. Jane K. Sather: for further work on Sather Gateway		3,828.72	
			16,418.56
<i>Donation of Real Estate and Improvements:</i>			
Whitaker Forest, 320 acres in Tulare County		\$9,600.00	
Associated Students of the University of California: Buildings and Improvements on Sylvan way and College avenue		21,849.58	
			31,449.58
<i>Income for Permanent Improvements:</i>			
Permanent Improvement Fund (one-fourth of the State University Fund)			190,131.92
			\$1,826,458.23
<i>Gifts for Endowments:</i>			
Alumnae of Young Women's Christian Association of University of California		\$600.00	
Alumni Association Life Membership Fund		20.00	
Alumnus Book Fund		500.00	
Class of 1881 Loan Fund		1,005.00	
Class of 1887 Library Fund		350.00	
Class of 1898 Loan Fund		200.00	
Class of 1900 Library Fund		50.00	
Class of 1911 Loan Fund		750.82	
Class of 1912 Fund		1,900.00	
W. R. Davis Scholarship Fund		5,000.00	
E. A. Denicke Library Fund		1,000.00	
E. A. Denicke Faculty Loan Fund		5,000.00	
Hesse Memorial Scholarship Fund		3,800.00	
Irving Prize Fund		500.00	
<i>Carried forward</i>		\$20,675.82	\$1,826,458.23

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$20,675.82	\$1,826,458.23
Napa Seminary Loan Fund	300.00	
Prytanean Fund	250.00	
Senior Class Loan Fund	1,000.00	
Students' Coöperative Fund	11,000.00	
Women's Dormitory Fund	2,021.04	
Young Women's Christian Association of the University of California	5,000.00	
Jane K. Sather Legacy		
Jane K. Sather Historical Chair Fund	100,000.00	
Jane K. Sather Classical Chair Fund (to which is added the present Jane K. Sather Fund, \$70,805.00: making the total of this fund, \$100,000)	29,195.00	
Jane K. Sather Historical Library Fund	12,461.68	
Jane K. Sather Campanile and the Sather Bells	225,000.00	
Jane K. Sather Fund awaiting distribution: to be divided, ultimately, between the Historical and Classical Chair Funds	44,040.40	
		<u>450,943.94</u>

NOTE.—The total received from the legacy of Mrs. Jane K. Sather was \$455,949.72. This is segregated into funds as mentioned above, amounting to \$410,697.08: the difference of \$45,252.64 was used for paying street assessments, taxes, and payments to beneficiaries by the trustees of her will.

Turning Over of Funds:

Students' deposits: later returned or due to be returned	\$16,038.87
Military uniforms	11,083.80
Certified checks accompanying bids on contracts	70,545.32
Deposits on plans	255.00
Football Tickets	45.00
	<u>97,967.99</u>

Income on properties held in trust:

For Mrs. Jane K. Sather:	
Proportion of Endowment Pool	\$2,403.74
For Madame Thérèse F. Colin:	
Proportion of Endowment Pool	84.38
Rents received from properties donated by the Associated Students	143.00
	<u>2,631.12</u>
Jane K. Sather Legacy: amount received, which was utilized for payments made by trustee to beneficiaries, taxes, street assessments, etc.	45,252.64

<i>Carried forward</i>	\$145,851.75	\$2,277,402.17
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EXPENDITURES

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<i>Brought forward</i>	\$145,851.75	\$2,277,402.17
Change of form of investments:		
Mortgage loans repaid and renewed..	\$562,602.99	
Collateral loans repaid and renewed	245,500.00	
Student notes from Loan Funds.....	1,746.27	
Watershed notes	20,000.00	
Broadway Terrace Lots, Oakland, sold on contract to Country Club Heights Co.	71,000.00	
Broadway Terrace Lots, Oakland, Cash for quieting title to Lots 3, 4, and 5 in Block F	88.35	
Pacific Gas and Electric Co. Bonds	2,100.00	
Sather Banking Co. Stock: dividend in liquidation	400.00	
	<hr/>	903,437.61
Contingent Fund: Reduction of Fund in hands of V. H. Henderson	4,000.00	
	<hr/>	1,053,289.36
		<hr/>
		\$3,330,691.53
		<hr/>

EXPENDITURES

JULY 1, 1911, TO JUNE 30, 1912

Administration:

Administrative Salaries:

Salaries	\$44,536.32	
Advisors	3,600.00	
Janitors, Watchmen, etc.	33,118.35	
President's Contingent Expense al- lotment	3,000.00	
	<hr/>	\$84,254.67
Repairs	18,879.41	
Site Improvement and Maintenance.....	16,607.65	
Water	8,346.39	
Fuel (aside from oil).....	1,945.10	
Light, Power and Heating System.....	43,887.27	
Equipment	3,586.19	
Telephone, Telegraph and Expressage.....	5,979.11	
Postage	2,775.46	
Stationery	1,380.55	
Examination of Schools.....	2,151.73	
Auditing	2,052.90	
Lectures	425.00	
Publications (the scientific series are included, but not the administrative printing)	10,150.72	
	<hr/>	
<i>Carried forward</i>	\$202,422.15	

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$202,422.15	
Printing Office	11,420.01	
Net cost of operating Storehouse for the six months months ending June 30, 1912.....	608.05	
		<u>\$214,450.21</u>

NOTE.—The cost of printing for individual departments is not included in this figure, such items have been charged to the various departments.

Administrative Expense:

Assistance and stenographers in all Administrative Departments	\$30,216.35	
Traveling Expenses.....	2,218.83	
Legal Expenses	1,174.20	
Charter Day—Honorarium	\$500.00	
Expenses, including reception.....	665.84	
		<u>1,165.84</u>
Moving various departments into Bacon Hall, etc....	1,296.60	
Moving Library to new building (expended during year)	329.00	
Moving Drawing Department to Calif. Hall Attic....	267.45	
Boalt Hall, removal of temporary book stacks, etc....	43.70	
Gas and Electricity	640.58	
Rental of office in Crocker Bldg., San Francisco.....	720.00	
Rental of rooms in Stiles Hall.....	205.00	
Rental of rooms in Faculty Club (Univ. Guest Rm.)	120.00	
Rental of Safe Deposit Box.....	60.00	
Rental of Auxiliary Fire Alarm Service at Affiliated Colleges	132.00	
Premium on Bonds	564.23	
Half-hour of Music	529.30	
Entertainment	383.10	
Press clippings	153.33	
Hack and auto hire.....	144.50	
Advanced for purchase of books in Europe.....	250.00	
S. B. Mitchell—Allowance for removal expenses.....	60.00	
Redemption of stolen microscopes.....	101.50	
Fee for investigation of thefts from lockers.....	25.00	
Dues for Association of American Uni- versities	\$40.00	
Dues for National Association of State Universities	15.00	
		<u>55.00</u>
Photos and blue prints.....	92.42	
Illuminating documents	75.00	
Exchange on drafts	62.74	
Placing and removing gates and barriers.....	80.55	
Commencement Day expenses.....	11.50	
Labor Day expenses.....	27.75	
Reporting addresses and lectures.....	37.60	
Directory service in California Hall.....	15.00	
		<u>55.00</u>
<i>Carried forward</i>	\$41,258.07	<u>\$214,450.21</u>

EXPENDITURES

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<i>Brought forward</i>	\$41,258.07	\$214,450.21
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Cartage of piano for University meetings.....	38.50	
Moving safe to Chemistry Building and back	30.00	
Bicycle repairs	32.20	
Miscellaneous	57.83	
	<hr/>	41,416.60

Students' Infirmary:

Equipment and running expenses.....	\$19,317.32	
Donations for furnishings.....	398.24	
	<hr/>	19,715.56

Library:

Departmental allotment:

Salaries	\$27,914.02	
Expense	4,351.75	
Assistance	5,317.68	
Depository cataloguing	1,371.97	
Bancroft Library cataloguing.....	1,500.00	
Equipment	757.58	
Binding	6,010.05	
Books and periodicals.....	20,819.60	
Completing sets	321.19	
Freight, insurance, etc.	957.72	
	<hr/>	\$69,321.56

Class of 1900 Library Fund, interest	5.56	
Class of 1907 Library Fund, interest	58.50	
Ethel W. Crocker donation.....	680.63	
E. A. Denicke Library Fund, interest	227.04	
History 1A donation	918.07	
Jucksch Fund, interest.....	47.73	
Irish books, donation for	42.83	
Mary Lake Memorial, donation	67.12	
Eugene Meyer, Jr., Library Fund, interest	65.88	
J. K. Moffitt donation.....	322.54	
Michael Reese Library Fund, interest	3,126.05	
Jane K. Sather Library Fund, interest	759.34	
Jane K. Sather Law Library Fund....	2,579.00	
Claus Spreckels donation.....	318.68	
Caroline Thorsen donation for Anat- omy books	2.40	
"Zoe," Sale of	20.30	
	<hr/>	9,241.67

78,563.23

NOTE.—Total expended for books and periodicals,
\$30,061.27.

Agriculture:

Departmental allotment:

Agriculture	\$21,027.68
Bacteriology	403.30
Dairy—Purchase of cows.....	1,060.00

<i>Carried forward</i>	\$22,490.98	\$354,145.60
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PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$22,490.98		\$354,145.60
Education	2,073.14		
Entomology	1,076.65		
Forestry	1,499.93		
		27,140.70	
Carnegie Foundation: retiring allowance.....		1,420.00	
United States:			
Adams Fund	\$15,000.00		
Agricultural Experiment Station.....	15,000.00		
Morrill College Aid Fund.....	21,633.26		
		51,633.26	
Agricultural Experiment Station sales....	22.15		
California Educational Butter Scoring contest	342.84		
Dairying	8,419.18		
Fertilizer Control	10,511.70		
Donation for investigation of Nitrogen Fertilizers	197.05		
Cereal Sales Fund	1,813.75		
Hog Cholera Serum Sales.....	7,394.63		
Poultry Experiment Station Sales Fund	192.60		
Southern California Pathological Labor- atory sales	295.80		
University Farm:			
Students' deposits	2,204.12		
Creamery	48,490.85		
Dormitory	12,034.77		
Poultry sales	1,384.15		
Sales of produce.....	8,824.85		
Veterinary sales.....	52.70		
Shop sales	44.53		
Stock sales	4,455.47		
Viticultural sales	120.31		
		106,801.45	
State Appropriations for Agriculture:			
Cereal Investigation	\$7,467.24		
Farmers' Institutes	12,978.47		
Hog Cholera Serum	8,959.88		
Imperial County Investigations	11,098.92		
Insecticides and Fungicides	4,980.14		
Plant Diseases, Northern	7,434.22		
Southern California Pathological Laboratory	20,003.54		
Southern California Pathological Laboratory equipment	1,128.75		
Printing publications and circulars..	4,856.77		
<i>Carried forward</i>	\$78,907.93	\$186,995.41	\$354,145.60

EXPENDITURES

473

Brought forward\$78,907.93 \$186,995.41 \$354,145.60

University Farm:

Equipment	6,068.96
Implements	974.68
Improvement of grounds.....	2,340.93
Livestock	5,319.90
Salaries	27,074.92
General support	23,292.62
Viticulture	7,593.42

151,573.36

338,568.77

NOTE.—The following amounts, expended from appropriations made by the State on the construction of buildings, are not included in the above figures:

University Farm Buildings.....	\$41,950.81
University Farm, light, power, water and sewer	1,884.04
Barn and workshops at Whittier.....	993.64
Heating plant at Whittier.....	347.54
Enlargement of plant at Whittier.....	3,971.31
Buildings and lands at Riverside.....	9,040.18
Chico Forestry Station barn.....	499.90
Chico Forestry Station fence.....	375.00

\$59,062.42

Anatomy 8,784.18

Anthropology:

Departmental allotment	\$9,100.37
Mrs. Hearst's donation for salaries.....	1,680.00

10,780.37

Architecture 9,480.96

Astronomy:

Berkeley Department (departmental allotment).....	\$9,654.56
Donation by National Academy of Arts and Sciences	2,100.00

11,754.56

Botany 16,676.48

Celtic 600.00

Chemistry:

Departmental allotment	\$21,648.02
Morrill College Aid Fund.....	6,199.80
Carnegie Foundation: Retiring allowance.....	1,035.00

28,882.82

Civil Engineering:

Departmental allotment:	\$22,351.37
Morrill College Aid Fund.....	6,258.31
Carnegie Foundation: Retiring allowance.....	2,045.00

30,654.68

Drawing 8,439.80

Carried forward \$818,768.22

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>		\$818,768.22	
Economics:			
Departmental allotment	\$5,303.73		
Cora Jane Flood Endowment Fund, interest, salaries	\$19,849.55		
Cora Jane Flood Endowment Fund, tablet and frame	185.00		
		20,034.55	25,338.28
Education			14,236.92
English:			
Departmental allotment	\$25,803.45		
Carnegie Foundation: Retiring allowance.....	1,750.00		
			27,553.45
Geography			3,546.63
Geology and Mineralogy.....			13,474.77
German:			
Departmental allotment	\$15,057.24		
Carnegie Foundation: retiring allowance.....	1,500.00		
			16,557.24
Greek:			
Departmental allotment	\$8,428.35		
Carnegie Foundation: retiring allowance.....	1,600.00		
			10,028.35
History			26,281.89
Hygiene			5,134.42
Irrigation			4,810.18
Jurisprudence			18,127.01
Latin			16,756.68
Mathematics:			
Departmental allotment	\$24,058.84		
Carnegie Foundation: retiring allowance.....	960.00		
			25,018.84
Mechanics:			
Departmental allotment	\$19,406.77		
John W. Mackay Jr. Endowment Fund, interest: Salaries	4,200.00		
John W. Mackay Jr. Endowment Fund, interest: Equipment	3,882.63		
Morrill College Aid Fund.....	3,774.96		
			31,264.36
Military Science and Tactics.....			3,013.64
Mining:			
Departmental allotment	\$16,261.10		
Morrill College Aid Fund.....	4,399.92		
Donation by Mrs. Hearst, for equipment of Hearst Memorial Mining Building	2,527.98		
			23,189.00
<i>Carried forward</i>			\$1,083,099.88

EXPENDITURES

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<i>Brought forward</i>		\$1,083,099.88
Music:		
Departmental expense	\$10.00	
State appropriation	2,998.22	
		3,008.22
Oriental Languages:		
Departmental allotment	\$1,817.56	
Tompkins Endowment Fund, interest, salaries.....	3,999.96	
		5,817.52
Palaeontology:		
Departmental allotment	\$5,599.92	
Donations by "A Friend"	2,237.19	
		7,837.11
Pathology		14,131.53
Philosophy:		
Departmental allotment	\$7,292.32	
D. O. Mills Endowment Fund, Interest, salaries.....	6,999.96	
Carnegie Foundation: retiring allowance.....	2,875.00	
		17,167.28
Physical Culture		7,136.49
Physics:		
Departmental allotment	\$27,122.31	
Morrill College Aid Fund.....	7,733.75	
		34,856.06
Physiology		11,394.96
Political Science:		
Departmental allotment	\$7,133.11	
Carnegie Foundation: retiring allowance	2,400.00	
		9,533.11
Romanic Languages		23,052.61
Sanskrit		1,800.00
Semitic Languages		1,999.92
Slavic Languages		2,225.52
University Extension		10.00
Vertebrate Zoology, Museum of (donation by Miss Annie M. Alexander for support)		11,389.09
Zoology:		
Departmental allotment	\$16,552.84	
Agassiz donation	600.00	
San Diego Marine Biological Laboratory donation (for two-thirds of Professor Ritter's salary).....	1,999.92	
Margaret B. Fowler donation.....	40.38	
		19,193.14
Miscellaneous:		
Expenditures made from Gymnasium Fee Receipts:		
Laundry	\$4,041.54	
Purchase of towels	1,483.15	
Sanitary drinking faucets	212.10	
Installing drinking fountains.....	102.50	
150 locker locks	110.25	
<i>Carried forward</i>	\$5,949.54	\$1,253,652.44

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$5,949.54	\$1,253,652.44
Laundry baskets	80.36	
Moving steel lockers from Mining to Gymnasium	8.35	
Liquid soap and bleaching powder..	308.70	
Purchase of Tennis Nets.....	106.82	
Purchase of Baseball Goods.....	42.02	
Care of Tennis Courts.....	325.95	
Care of Basket Ball Courts.....	144.45	
Care of Swimming Pool.....	196.65	
Lumber for Spring-board.....	11.29	
Water for sprinkling	13.55	
Miscellaneous items	93.47	
	<hr/>	\$7,281.15
Redemption of taxes on Sylvan Way property	\$55.04	
Second installment of 1911 taxes on Sylvan way property donated to Regents	33.55	
Bancroft Library, expense	1,023.00	
Bust of Professor Hilgard, paid from donations	200.00	
Miscellaneous litigation expenses	61.90	
Hitchcock Lectures	500.00	
Weinstock Lectures	185.00	
Rewiring buildings on Campus.....	158.99	
Affiliated Colleges: repairs and mainte- ance of grounds	2,669.87	
Affiliated Colleges: rewiring buildings....	2,677.74	
Affiliated Colleges: fire precautions.....	521.52	
State Treasurer: refund for publications	8.50	
University Medals:		
Prizes for competition for	300.00	
Medals, new dies, expressage, etc.	314.30	
Short in cash during registration of students.. ..	24.50	
Highland Tract lot: taxes redeemed.....	13.59	
Water rent on property at Menlo.....	179.15	
Taxes on property in Salt Lake City....	51.66	
Small repair work on Broadway Terrace, Oakland	129.20	
	<hr/>	9,107.51
		<hr/>
		16,388.66
Scholarships and Prizes:		
State of California Scholarships.....	\$3,375.00	
Catherine Allen Scholarships	250.00	
Bonnheim Prize	355.00	
Bryce Historical Essay Prize	100.00	
Emily Chamberlain Cook Prize	45.00	
Scholarship for Tracy Crane	62.50	
James M. Goewey Scholarship	250.00	
	<hr/>	
<i>Carried forward</i>	\$4,437.50	\$1,270,041.10

EXPENDITURES

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<i>Brought forward</i>	\$4,437.50	\$1,270,041.10
Phoebe A. Hearst Scholarships	2,400.00	
Cornelius B. Houghton Scholarship	150.00	
Albert Sydney Johnston Scholarship	175.00	
Martin B. Kellogg Memorial Fellowship	600.00	
LeConte Memorial Fellowship	400.00	
Frank M. Pixley Scholarship	200.00	
San Jose High School Scholarship	250.00	
Sheffield Sanborn Scholarships	750.00	
Levi Strauss Scholarships	3,625.00	
W. D. Thompson Scholarships	2,400.00	
University Fellowships	4,000.00	
University Fellowships in Academy of Pacific Coast History, from Native Sons of the Golden West....	1,400.00	
Women's Christian Temperance Union Essay Prize..	50.00	
Whiting Fund Fellowship	600.00	
		<hr/> 21,437.50
Summer Session:		
Session of 1911	\$20,958.33	
Session of 1912	4,891.82	
Summer School of Civil Engineering	2,086.56	
Summer School of Civil Engineering Commissary	3,698.26	
		<hr/> 31,634.97
NOTE.—A statement of the total receipts and expenditures of the Summer Session of 1911 will be found on page 492.		
Lick Observatory:		
Departmental allotment	\$31,870.20	
State appropriation for Printing	43.85	
From gifts:		
E. E. Barnard, for photographs	\$1,198.50	
Carnegie Institution	1,237.47	
Wm. H. Crocker, for apparatus	1,057.14	
William Randolph Hearst, donation for earthquake recording apparatus	9.53	
Mrs. Hearst, for Swimming Pool	350.00	
Mrs. Hearst, for Publications	1,000.00	
D. O. Mills Southern Hemisphere Expedition	9,901.43	
	<hr/> 14,754.07	
		46,668.12
Dental Department:		
Running expenses		23,737.43
Medical Department:		
Running expenses	\$11,247.77	
Donation for Diet Kitchen: Mrs. Drexler	173.44	
Donation for Incinerator	225.00	
	<hr/>	
<i>Carried forward</i>	\$11,646.21	\$1,393,519.12

Brought forward	\$11,646.21	\$1,393,519.12	
Los Angeles Medical Department:			
Running Expenses	10,000.00		
University Hospital in San Francisco:			
Equipment, Maintenance, etc.	55,920.13		
			77,566.34
Musical and Dramatic performances			2,231.57
Academy of Pacific Coast History			6,087.82
Watershed Lands (purchase of lands, etc., in Strawberry Cañon, to be paid for, ultimately, out of Permanent Building Fund moneys. The total cost of these lands up to date is \$167,632.84, and is being charged to Permanent Building Fund at the rate of \$20,000 per annum: three installments have been so charged)			1,455.90
Building Operations:			
Expenditures during the year on work in progress, paid from General Funds:			
Bath House and Equipment	\$313.36		
Civil Engineering Building, alteration....	190.75		
Civil Engineering Testing Laboratory....	3,327.68		
Total expenditure during year was \$4,309.45, of which \$981.77 was charged against the departmental allotment for Civil Engineering.			
East Hall alterations	737.00		
Total expenditure during year was \$3,241.66: of this, \$2,504.66 is charged against Permanent Building Fund.			
Infirmary Annex (paid for out of fees received from students)	745.45		
Lick Observatory Dormitory and Cottages	1,170.68		
Lick Observatory Earthquake Replacement	6,178.86		
South Hall alterations	1,879.00		
Swimming Tank (cost ultimately to be defrayed by Gymnasium fees).....	247.70		
Swimming Tank for Women	46.25		
University Hospital, oil burning plant under boilers	1,729.83		
		\$16,566.56	
Expenditures during the year on work in progress, paid from donations:			
Anthropology Department of Affiliated Colleges, as per Donations from Mrs. Hearst:			
Erection of Totem Pole	\$601.73		
Fireproofing Museum	158.40		
Reconstruction of Museum	455.00		
Carried forward	\$1,215.13	\$16,566.56	\$1,480,860.75

EXPENDITURES

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<i>Brought forward</i>	\$1,215.13	\$16,566.56	\$1,480,860.75
Boalt Hall of Law	1,355.52		
Class of 1910 donation for footbridge over Strawberry Creek	1,307.15		
University Library Building (from the Doe Bequest)	9,995.02		
Girton Hall (from donations by Women's Senior Class).....	3,967.22		
Marble Chair in Greek Theatre, erected from funds in the hands of the University, donated by the Class of 1905	216.60		
New Roads north of Doe Library (from the donation by Mrs. Hearst).....	1,500.00		
(Total expenditures during year were \$13,552.51, of which \$12,052.51 is charged against Permanent Building Fund.)			
Sather Gateway (from donation by Mrs. Sather)	3,669.07		
		23,225.71	
Expenditures on buildings, etc., from appropriations made by the State of California:			
University Farm:			
Buildings	\$41,950.81		
Light, Power, Water and Sewer.....	1,884.04		
		43,834.85	
Whittier:			
Barn and workshop	\$993.64		
Heating Plant	347.54		
Enlargement of Plant	3,971.31		
		5,312.49	
Riverside:			
Buildings and Lands		9,040.18	
Chico Forestry Station:			
Barn	\$499.90		
Fence	375.00		
		874.90	
Los Angeles:			
Hospital Unit for the Medical Department		4,675.60	
Building Operations (expenditures from Permanent Building Fund during year):			
Affiliated Colleges, Hospital heating ex- tension	\$29.88		
Affiliated Colleges, Medical Department alterations	1,471.30		
Affiliated Colleges, Veterinary and Med- ical Buildings	11.40		
<i>Carried forward</i>	\$1,512.58	\$103,530.29	\$1,480,860.75

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$1,512.58	\$103,530.29	\$1,480,860.75
Affiliated Colleges, Veterinary and Hospital Buildings, electrical work	86.23		
Affiliated Colleges, new boiler	182.00		
Affiliated Colleges, repairs to Hospital	4.80		
Arch Line additions	897.09		
Bacon Library, alterations	12,042.37		
Botany Garden Tool House	282.90		
California Hall, altering floor lights	542.60		
California Hall, equipment	1,851.29		
California Hall, heating and ventilating attic	1,586.14		
Chemistry Auditorium	15,412.14		
Chemistry storehouse	318.47		
East Hall, alterations ¹	2,504.66		
Museum Vertebrate Zoology	390.86		
New roads, California Hall to Telegraph avenue	12.92		
New roads, La Loma wagon road	77.65		
New roads, north of Doe Library ²	12,052.51		
President's House	2,770.13		
President's House, walks and roads	3,470.20		
Storehouse	728.43		
Tunnel	70.55		
Tunnel under new road	309.18		
Agriculture Hall, furnishings	1,542.54		
Boalt Hall, furnishings	22,007.83		
Chemistry Auditorium furnishings	16.37		
President's House, furnishings	1,305.92		
	<u>\$81,978.36</u>		
Agriculture Hall Building: Expenditures during year ³	\$104,641.97		
University Library furnishings: Expenditures during year ⁴	108,493.16		
		<u>295,113.49</u>	
Wilmerding School:			\$398,643.78
Running expenses	\$25,208.00		
New building (under construction by students)	4,141.82		
Street improvement	1,169.25		
		<u>\$30,519.07</u>	
			<u>\$30,519.07</u>
<i>Carried forward</i>			\$1,910,023.60

¹ Total expenditures during year, \$3,241.66, of which \$737 is met from General Funds.

² Total expenditures during year, \$13,552.51, of which \$1,500 is paid for out of donation by Mrs. Hearst.

³ The total expenditure on this building to date is \$188,316.23; the appropriation from the Permanent Building Fund is \$200,000, to be charged in annual installments of \$20,000.

⁴ The total expenditure on these furnishings to date is \$183,144.90; the appropriation from the Permanent Building Fund is \$200,000, to be charged in annual installments of \$20,000.

Brought forward \$1,910,023.60

Turning over of funds:

Jane K. Sather Funds:

Sather Chair Fund, interest paid to Mrs. Sather	\$1,897.08	
Sather Law Library Fund, interest paid to Mrs. Sather	632.12	
Income on Class of 1909 Fund, paid to Secretary	39.61	
Income on Class of 1910 Fund, paid to Secretary	46.41	
Income on Alumnae Y. W. C. A. Fund, paid to Secretary	14.58	
Income on Y. W. C. A. Fund, paid to Secretary	122.22	
	<hr/>	\$2,752.02

Madame Thérèse F. Colin:

Payments to Madame Thérèse F. Colin..	\$66.31	
Appraising lots	5.00	
	<hr/>	71.31
Bills payable		20,000.00
Students' deposits returned		17,115.23
Expenditures on properties donated by Associated Students (these expenditures ultimately to be made good by them)		332.24
Military uniforms		10,901.80
Football Tickets		45.00
Certified checks accompanying bids on contracts returned to contractors		69,907.45
Deposits on plans		260.00

Bills Receivable:

Mortgage loans (consummated and renewed)	\$310,000.00	
Collateral loans (consummated and renewed)	160,000.00	
Kearney Vineyard: Advances Account..	3,000.00	
Student notes from Loan Funds	5,109.00	
	<hr/>	478,109.00

Contingent Fund:

R. P. Merritt	\$10,000.00
V. H. Henderson	2,000.00
W. W. Campbell	2,000.00
W. D. Armes	1,500.00
H. C. Moffitt	1,000.00
R. M. Roberts	300.00
W. C. Packard	300.00
J. C. Merriam	200.00

<i>Carried forward</i>	\$17,300.00	\$599,494.05	\$1,910,023.60
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PRESIDENT'S BIENNIAL REPORT

Brought forward	\$17,300.00	\$599,494.05	\$1,910,023.60
A. L. Kroeber	129.63		
J. E. Coit	100.00		
G. A. Merrill	50.00		
	<hr/>	17,579.63	
Improvements, etc., on buildings, etc., held as investments:			
Johnson Building site	\$1,302.80		
Sacramento Building (Blake, Moffitt & Towne Building)	17,290.09		
Highland Tract lots, Berkeley:			
Commission on sale	80.00		
Quit claim deed	50.00		
Taxes	4.52		
Street work	5.90		
Broadway Terrace lots, Oakland:			
Street assessment, fencing, etc.	6,217.41		
	<hr/>	24,950.72	
Income, etc., on Savings Bank Deposits not withdrawn and treated as increase of investment:			
Central Savings Bank of Oakland	\$594.01		
First Federal Trust Co. of San Francisco	328.81		
	<hr/>	922.82	
Jane K. Sather Legacy: Payments made as follows:			
To Trustee for beneficiaries	\$34,225.00		
Street assessment on property at Fourteenth and Broadway, Oakland	8,000.00		
Taxes on property at Fourteenth and Broadway, Oakland	2,902.64		
Abstract of title on property at Fourteenth and Broadway, Oakland	125.00		
	<hr/>	45,252.64	
Valuations of properties:			
5 Bohemian Club Bonds received from S. C. Irving for endowing a Prize Fund	\$500.00		
4 Bohemian Club Bonds received from F. H. Powers as final payment on account of subscription to the Boalt Hall of Law (these bonds are treated as part of the investment of the Endowment Pool moneys)	400.00		
Whitaker Forest, Tulare Co., being 320 acres donated by Horace Whitaker	9,600.00		
	<hr/>		
Carried forward	\$10,500.00	\$688,199.86	\$1,910,023.60

Brought forward\$10,500.00 \$688,199.86 \$1,910,023.60

Real estate and improvements donated by Associated Students of the University of California (being nos. 2246 and 2248 College avenue, and no. 2644 Sylvan way; this figure is the cost paid by the A. S. U. C.) 21,849.58

Real estate and improvements donated for the Hesse Memorial Scholarship Fund, being no. 157 Santa Clara avenue, Oakland) 3,800.00

36,149.58

Properties, etc., received from the Jane K. Sather Trusts:

Valuation of property at Fourteenth and Washington street, Oakland..\$400,000.00

Mortgage given by the Beta Theta Pi Hall Association 7,000.00

Deposits in the Savings Banks:

Central Savings Bank of Oakland, no. 24372 10,200.00

Central Savings Bank of Oakland, no. 17563 5,426.68

Central Savings Bank of Oakland, no. 14459 12,272.35

First Federal Trust Co., San Francisco, no. 2589 6,547.90

First Federal Trust Co., San Francisco, no. 2985 14,502.79

455,949.72

1,180,299.16

\$3,090,322.76

RECEIPTS—REVENUE ACCOUNT

YEAR ENDING JUNE 30, 1912

(This represents income from the General Fund, i.e., of moneys not restricted to special purposes.)

State appropriations:

State University Fund	\$567,020.78	
General support	100,000.00	
To reimburse income	9,000.00	
		<hr/>
		\$676,020.78

Endowment Pool Income:

On Consolidated Perpetual Endowment	118,924.07
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Students' Deposits and Fees (net):

Agriculture	\$586.50	
Astronomy	307.50	
Bacteriology	785.98	
Botany	713.75	
Chemistry	11,665.22	
Civil Engineering	3,156.50	
Mechanics	2,337.95	
Military Uniforms—Amounts not claimed	182.00	
Mineralogy	277.50	
Mining	1,299.75	
Physics	4,427.10	
Physiology	125.15	
Zoology	1,397.50	
Zymology	11.50	
Changing courses	275.50	
Delayed registrations	922.00	
Non-resident	4,555.00	
Special examinations	1,905.00	
		<hr/>
		34,931.40

Interest on notes given for operations at Students' Infirmary

5.86

Summer Session of 1911 (a complete statement of receipts and expenditures is shown under the Expenditures of Revenue Account, q. v.)

Examination of Schools	175.00
University Extension: Sale of Syllabus	5.40

Sundry rents:

Cottages: Rents	\$3,427.91	
Less repairs	2,457.25	
		<hr/>
		970.66
Such Ranch	418.50	
Seaman Cottage	15.00	
Lot 5, University Heights	3.00	
		<hr/>

Carried forward \$1,407.16 \$830,062.51

RECEIPTS—REVENUE ACCOUNT

485

Brought forward	\$1,407.16	\$830,062.51
Land, University Heights (Stanley lease)	75.00	
Potrero avenue lots	120.00	
Congressional land, Fresno County	10.00	
Congressional land, San Luis Obispo County	48.87	
		1,661.03
Medicine Fees, etc.:		
San Francisco and Berkeley	\$11,156.78	
Los Angeles	4,118.19	
		15,274.97
Chemistry:		
Supplies sold	\$72.40	
Analyses made	255.00	
		327.40
Civil Engineering: Tests, etc.		635.35
Dairying:		
Sale of produce	\$9,769.10	
Sale of cattle	11.64	
		9,780.74
Dentistry: Fees and miscellaneous receipts (net)		19,374.09
Library:		
Fines	\$50.40	
Books	55.28	
Periodicals	13.79	
Binding	1.20	
Freight and expense	23.18	
		143.85
Lick Observatory:		
Income on Endowment	\$5,245.93	
Rent: Morrow	80.00	
		5,325.93
Military Science: Belts		6.64
Mining: Sale of materials		3.28
Pathology: Sale of supplies		31.69
Physics: Sale of Geissler tubes		4.00
Political Science: Sale of Syllabus		23.65
Printing Office and Publications:		
Cash receipts for work done at Printing Office	\$1,026.50	
Sale of Publications	2,819.74	
Sale of Syllabus	6.65	
		3,852.89
Reimbursement for work done, supplies, etc.:		
University site	\$1,607.65	
Administration:		
Repairs	1,408.00	
Telephone, Telegraph and Express	510.72	
Salaries (Janitor)	296.05	
Writing letters (Appointment Secretary)	225.99	
Water	447.88	
Sale of junk	32.50	
Carried forward	\$4,528.79	\$886,508.02

PRESIDENT'S BIENNIAL REPORT

Brought forward	\$4,528.79	\$886,508.02
Sale of wood	166.45	
Addressograph supplies, etc.	91.35	
Stationery	16.75	
Postage	37.68	
Electric Light and Power Department	640.13	
Miscellaneous	130.54	
		5,611.69
Contingent Fund for Anthropological Department heretofore treated as advanced from Budget allotment now treated as a Contingent Fund		129.63
Miscellaneous items applying to previous year's accounts carried to Revenue Account:		
University Farm Poultry sales .....	.23	
University Farm Support	23.30	
University Farm Creamery sales.....	3.85	
University Farm Grounds	15.58	
Southern California Pathological Laboratory.....	17.34	
Boalt Hall Building	8.00	
Wilmerding School expenses	50.76	
Student Infirmary	342.63	
		461.69
		<u>\$892,711.03</u>

CHARGES—REVENUE ACCOUNT

YEAR ENDING JUNE 30, 1912

(This represents expenditures from the General Fund, i.e., of moneys not restricted to special purposes.)

Agriculture:		
Salaries	\$13,095.24	
Current expenses	7,932.44	
Forestry	1,499.93	
Entomology	1,076.65	
Bacteriology	403.30	
Education	2,073.14	
Purchase of cows for Dairy.....	1,060.00	
		\$27,140.70
Anatomy:		
Salaries	\$6,166.50	
Expenses	2,617.68	
		8,784.18
Anthropology:		
Salaries	\$ 3,540.00	
Expenses	3,560.37	
Carried forward	\$9,100.37	\$35,924.88

CHARGES—REVENUE ACCOUNT

487

<i>Brought forward</i>	\$9,100.37	\$35,924.88
Excess cost over donation by Mrs. Hearst for erection of Totem Pole.....	101.73	
Excess cost over donation by Mrs. Hearst for recon- struction of Museum.....	50.00	
		9,252.10
Architecture:		
Salaries	\$8,439.84	
Expenses	1,041.12	
		9,480.96
Astronomy:		
Salaries	\$8,299.80	
Expenses	1,354.76	
		9,654.56
Botany:		
Salaries	\$11,579.88	
Expenses	5,096.60	
		16,676.48
Celtic:		
Salaries		600.00
Chemistry:		
Salaries	\$15,942.89	
Expenses	5,705.13	
		21,648.02
Civil Engineering:		
Salaries	\$13,199.22	
Expenses	9,152.15	
		22,351.37
NOTE.—“Expenses” are arrived at after allowing for \$830.29 for work done for other departments of the University; see also cash received for tests, etc., \$635.35.		
Dairying:		
Salaries	\$600.00	
Expenses	7,819.18	
		8,419.18
Dentistry:		
Salaries	\$11,783.05	
Expenses	11,954.38	
		23,737.43
Drawing:		
Salaries	\$8,399.76	
Expenses	40.04	
		8,439.80
Economics:		
Salaries	\$4,783.49	
Expenses	520.24	
		5,303.73
<i>Carried forward</i>		\$171,488.51

PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>		\$171,488.51
Education:		
Salaries	\$13,693.92	
Expenses	543.00	
		14,236.92
English:		
Salaries	\$25,349.76	
Expenses	453.69	
		25,803.45
Geography:		
Salaries	\$3,349.86	
Expenses	196.77	
		3,546.63
Geology and Mineralogy:		
Salaries	\$11,633.10	
Expenses	1,841.67	
		13,474.77
German:		
Salaries	\$14,666.16	
Expenses	391.08	
		15,057.24
Greek:		
Salaries	\$8,299.92	
Expenses	128.43	
		8,428.35
History:		
Salaries	\$23,582.82	
Expenses	2,699.07	
		26,281.89
Hygiene:		
Salaries	\$4,433.28	
Expenses	701.14	
		5,134.42
Irrigation:		
Salaries	\$4,099.92	
Expenses	710.26	
		4,810.18
Jurisprudence:		
Salaries	\$17,624.40	
Expenses	502.61	
		18,127.01
Latin:		
Salaries	\$16,399.80	
Expenses	356.88	
		16,756.68
Library:		
Salaries	\$27,914.02	
Assistance	5,317.68	
Equipment	757.58	
Expense	4,351.75	
Binding	6,010.05	
Books	14,936.68	
<i>Carried forward</i>		\$323,146.01

CHARGES—REVENUE ACCOUNT

489

<i>Brought forward</i>	\$59,287.76	\$323,146.05
Completing Sets	321.19	
Periodicals	5,882.92	
Freight, Expressage, Insurance, etc.....	957.72	
Depository Cataloguing	1,371.97	
Bancroft Library Cataloguing.....	1,500.00	
		69,321.56
Lick Observatory (subject to income from Endowment):		
Salaries	\$24,183.84	
Expenses	7,686.36	
		31,870.20
Mathematics:		
Salaries	\$22,932.84	
Expenses	1,126.00	
		24,058.84
Mechanics:		
Salaries	\$11,549.76	
Expenses	7,857.01	
		19,406.77
Medicine:		
San Francisco: Salaries	\$1,200.00	
San Francisco: Expenses	10,047.77	
Los Angeles Department: Running expenses.....	8,725.13	
Los Angeles Department: Repairs to buildings.....	1,274.87	
		21,247.77
(See cash received from Fees, etc.)		
Military Science:		
Salaries	\$799.92	
Expenses	2,213.72	
		3,013.64
(See also cash received for damage to accoutrements.)		
Mining:		
Salaries	\$11,899.80	
Expenses	4,361.30	
		16,261.10
(See also cash received from sale of supplies.)		
Music:		
Expenses		10.00
Oriental Languages:		
Salaries	\$3,320.73	
Expenses	97.60	
		3,418.33
Palaeontology:		
Salaries	\$5,299.92	
Expenses	300.00	
		5,599.92
Pathology:		
Salaries	\$10,599.84	
Expenses	3,531.69	
		14,131.53
(See also cash received from sale of supplies.)		
<i>Carried forward</i>		\$531,485.71

<i>Brought forward</i>		\$531,485.71
Philosophy:		
Salaries	\$6,424.92	
Expenses	867.40	
		7,292.32
Physical Culture:		
Salaries	\$6,136.49	
Expenses	1,000.00	
		7,136.49
Physics:		
Salaries	\$18,465.43	
Expenses	8,656.88	
		27,122.31
(See also cash received from sale of supplies.)		
Physiology:		
Salaries	\$8,019.96	
Expenses	3,375.00	
		11,394.96
Political Science:		
Salaries	\$6,665.88	
Expenses	467.23	
		7,133.11
(See also cash received from sale of syllabus.)		
Printing Office:		
Salaries	\$2,400.00	
Expenses	34,181.85	
		\$36,581.85
Less work done for departments.....	25,161.84	
		11,420.01
(See also cash receipts for work done.)		
Romanic Languages:		
Salaries	\$21,299.55	
Expenses	1,753.06	
		23,052.61
Sanskrit:		
Salaries		1,800.00
Semitic Languages:		
Salaries		1,999.92
Slavic Languages:		
Salaries	\$2,199.96	
Expenses	25.56	
		2,225.52
University Extension:		
Expenses		10.00
<i>Carried forward</i>		\$632,072.90

CHARGES—REVENUE ACCOUNT

491

Brought forward \$632,072.96

University Site:

Expenses	\$23,690.05	
Less work done for departments.....	7,082.40	
		16,607.65

(See also cash receipts for reimbursement for labor, etc.)

Zoology:

Salaries	\$12,349.84	
Expenses	4,203.00	
		16,552.84

University Hospital: Excess of expenditures over receipts		19,996.68
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Administration:

Salaries:

Advisors	\$3,500.00	
Janitors	33,118.35	
President's Contingent	3,000.00	
Administration.....	44,536.32	
		\$84,154.67

Fellowships	4,000.00	
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Expenses (for details see page 470)	41,416.60	
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Short in taking in cash.....	24.50	
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Electric Light and Power:

Maintenance: Salaries	\$3,600.00	
Maintenance: Expenses	37,036.71	
Current Repairs	1,996.35	
Reconstruction	1,254.21	
		43,887.27

NOTE.—Work done for other departments

(\$222.80) is deducted from this figure;
see also cash receipts, \$640.13.

Repairs: Expenses.....	\$54,233.14	
Less work done for other depts., etc.....	35,353.73	
		18,879.41

(See also cash receipts for work done, etc.)

Water	8,346.39	
Publications	10,150.72	
Equipment	3,586.19	
Fuel	1,945.10	

Storehouse: Net cost of operation and maintenance (for six months) after allowing for inventory of merchandise on hand.....	608.05	
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Telephone, Telegraph and Expressage.....	5,979.11	
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Postage	2,775.46	
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Auditing	2,052.90	
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Lectures	425.00	
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Carried forward	\$228,231.37	\$685,230.13
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PRESIDENT'S BIENNIAL REPORT

<i>Brought forward</i>	\$228,231.37	\$685,230.13
Stationery	1,380.55	
Examination of Schools.....	2,151.73	
Bancroft Library: Expense.....	1,023.00	
Bancroft Library: Excess of expenditures over income to date on the Academy of Pacific Coast History....	3,799.93	
Affiliated Colleges: Repairs and maintenance of grounds	2,669.87	
		\$239,256.45
Summer Session of 1911: Net transfer to this account.....		32.29

This item is made up as follows:

Net fees from Summer Session: This is
after allowing for \$1,753 transferred
to Infirmary Fees Account, being \$1
on each complete \$15 fee retained \$27,709.75

Net amounts retained from other fees and
deposits as follows:

Medicine	30.00
Bacteriology	92.50
Botany	97.50
Chemistry	846.66
Home Economics	282.25
Manual Training	375.28
Physics	325.15
Psychology	14.00
Zoology	77.00
Donation towards salary	41.67
	\$29,891.76
Total expenditures.....	25,537.94
	\$4,353.82
Excess of receipts over expenditures	
*Amount transferred to Summer Session Endowment Fund	4,386.11
	\$32.29
Deficit charged to Revenue	

Interest on Daily Balances:

The Endowment Pool is credited with
interest at the Endowment Pool rate
for the previous half-year on average
daily balance of investment moneys on
hand, which amounted for the first
half-year, at 6.24237 per cent per an-
num, to \$6,191.90

<i>Carried forward</i>	\$6,191.90	\$924,518.87
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* It was voted to transfer \$6,000 to create a Sum-
mer Session Endowment Fund; \$1,613.89 came from
the surplus of 1910 account.

<i>Brought forward</i>	\$6,191.90	\$924,518.87
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For the second half-year at 5.8176901 per cent per annum.....	10,955.30	\$17,147.20
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Less amount received from Treasurer for interest at 2 per cent per annum on daily balances.....	6,186.91	
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		\$10,960.29
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(This is equivalent to saying that the General Fund has borrowed money from the Investment Fund, paying 6.24237 per cent per annum for it for the first half year, and 5.8176901 per cent per annum for the second half year.)

Amount credited to D. O. Mills Endowment Fund, being excess of income of the Mills Endowment over half the expenses on Philosophy for the year ending June 30, 1911	\$2,938.53	
Redemption of taxes on Sylvan Way property.....	55.04	
Second installment of taxes on Sylvan Way property.....	33.55	

		3,027.12
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Expenditures on erection of buildings during year:

Affiliated Colleges: Fire precautions	\$521.52	
Affiliated Colleges: Rewiring buildings.....	2,677.74	
Affiliated Colleges: Oil burning plant at University of California Hospital	1,729.83	
Civil Engineering Building: Alterations.....	190.75	
Civil Engineering Building: Testing laboratory.....	3,327.68	
East Hall: Alterations.....	737.00	
Rewiring buildings on Campus.....	158.99	
South Hall: Alterations.....	1,879.00	
Women's Swimming Pool.....	46.25	

		11,268.76
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		\$949,775.04
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SUMMARY OF REVENUE ACCOUNT

Charges for 1911-1912.....	\$949,775.04
Receipts for 1911-1912.....	892,711.03

Excess of charges over receipts	\$57,064.01
Balance on hand at June 30, 1911.....	41,657.45

Overdraft at June 30, 1912	\$15,406.56
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SCHEDULES REFERRED TO IN THE BALANCE SHEET FOR JUNE 30, 1912

A. REAL ESTATE IN BERKELEY.

NOTE.—Italics indicate a gift.

<i>Campus lands</i> (given by the College of California and its friends)	\$1,000,000.00
<i>Hearst Hall site and Hearst Cottage site</i> (the gift of Mrs. Phoebe A. Hearst)	7,000.00
Hillegass Tract	194,991.04
Palmer House site (on Piedmont Avenue).....	17,500.00
Watershed Lands (in Strawberry Canon).....	167,632.84
Sylvan Way property (buildings and lands), purchased for the Campus	15,395.00
<i>Sylvan Way and College Avenue</i> (buildings and lands) donated by the Associated Student Body for the Campus.....	21,849.58
	\$1,424,368.46

B. BUILDINGS AND IMPROVEMENTS IN BERKELEY.

In active use for University purposes:

Acid House	\$480.00
Agricultural Building	7,200.00
Agricultural Hall: Expenditures to June 30, 1912.....	188,316.23
Anatomical Laboratory and Printing Office.....	6,400.00
Architectural Building	12,248.08
<i>Bacon Library Building</i> (for this Henry Douglass Bacon gave \$25,000)	60,515.74
Bacteriological Laboratory	480.00
Barns	2,000.00
<i>Boalt Hall of Law</i> : Expenditures to June 30, 1912 (for this Mrs. Boalt has given \$100,000 and the lawyers of California have subscribed \$50,000; balance to be paid from Permanent Building Fund)	159,031.06
Botany Building	5,600.00
<i>Bridge at Faculty Club</i>	1,387.92
Bridge at Football Statue.....	3,384.33
Bridge at Sather Gate.....	10,922.86
<i>California Field</i> (improvements of football grounds: built by the Associated Students)	20,000.00
California Hall	271,711.33
Carpenter's Shop, building and machinery.....	4,033.19
Cement sidewalks	596.25
Chemistry Auditorium	15,412.14
Chemistry Building	81,000.00
Chemistry Storehouse	318.47
<i>Cinder Path</i> (old athletic path: built by the Associated Students)....	1,000.00
Civil Engineering Hall.....	38,582.61
<i>Carried forward</i>	\$890,620.21

<i>Brought forward</i>	\$890,620.21
Civil Engineering Laboratory.....	2,400.00
Civil Engineering Testing Laboratory.....	6,981.77
Conservatory	10,800.00
Dairy Barn	2,400.00
Dairy Milk House, equipment, etc.	4,160.60
Manure Pit	1,031.15
East Hall	18,000.00
Entomological Laboratory	2,569.99
<i>Faculty Club</i> (built by the Faculty Club).....	12,000.00
Fertilizer Control Laboratory	14,615.29
<i>Girton Hall</i>	4,032.34
<i>Greek Theatre</i> (the gift of William Randolph Hearst).....	45,000.00
<i>Harmon Gymnasium</i> (the original building was the gift of A. K. P. Harmon)	50,181.89
<i>Hearst Hall</i> (the gift of Mrs. Phoebe A. Hearst).....	35,978.30
<i>Hearst Memorial Mining Building</i> (the gift of Mrs. Phoebe A. Hearst as a memorial to her husband, Senator George Hearst).....	644,400.00
Hog Pens, etc., in Strawberry Cañon for Hog Serum work.....	4,205.36
Hygiene and Pathology Laboratory	24,940.02
Landscape Gardening (grading, walls, etc.).....	3,118.85
Mechanics Building	61,025.00
<i>John Mitchell Monument</i> (erected by the University Cadets)	358.95
<i>Museum Building, Archaeology</i> (the gift of Mrs. Phoebe A. Hearst)	3,667.77
New permanent roads.....	74,378.83
North Hall	20,000.00
Philosophy Building	8,000.00
Plant Houses	957.00
Platform Scales	350.00
Power, Light and Heat Plant:	
Central Station: Building and machinery.....	\$73,421.29
Workshop for Electric Light and Power Dept.....	1,040.40
Electric construction on Campus.....	9,430.68
Heating System (exclusive of Central Station).....	42,347.16
	126,239.53
President's House (expenditures to June 30, 1912).....	113,868.35
Rifle Range	501.90
<i>Sather Gateway</i> (expenditures to June 30, 1912, from gift of Mrs. Jane K. Sather)	35,797.16
<i>Senior Hall</i> (given by the Order of the Golden Bear).....	4,676.98
Shops (carpenter, painter, etc.).....	1,200.00
South Hall	126,000.00
<i>Rudolph Spreckels Temporary Physiological Laboratory</i> (the gift of Rudolph Spreckels).....	25,000.00
Storehouse (Grounds and Buildings Department).....	635.53
Storehouse (General)	728.43
Strawberry Cañon weir	569.80
Students' Infirmary	16,830.41
Students' Observatory	8,000.00
Swimming Tank	17,200.00
<i>Carried forward</i>	\$2,423,421.41

<i>Brought forward</i>	\$2,423,421.41	
Tennis Courts	21,970.89	
Tool House in Botany Garden.....	282.90	
Trunk sewer	6,356.10	
<i>University Library</i> (built out of the Charles Franklin Doe bequest)....	682,333.40	
Viticultural Laboratory	400.00	
<i>Zoology, California Museum of Vertebrate</i> (Miss Annie M. Alexander gave \$7,000 toward the cost of this building).....	15,094.31	
Dwellings rented:		
<i>Hearst Cottage</i> , College avenue (given by Mrs. Phoebe A. Hearst)	\$2,750.00	
Palmer House (Piedmont Avenue)	2,500.00	
University Cottages (Allston Way).....	9,600.00	
		14,850.00
		<u>\$3,164,709.01</u>
C. REAL ESTATE AND IMPROVEMENTS NOT IN BERKELEY.		
Utilized for University purposes:		
San Francisco:		
Affiliated Colleges (the land was given by Adolph Sutro)	\$405,707.74	
<i>San Francisco Institute of Art</i> (the gift of Edward F. Searles)	235,150.00	
Wilmerding School:		
New building	\$46,616.64	
Old building	24,906.46	
Real estate	59,463.05	
		130,986.15
		<u>771,843.89</u>
Lick Observatory:		
<i>Lands, Buildings and Equipment</i>	\$610,000.00	
Holden Tract	511.25	
Cook Tract	960.00	
Hartzoke Tract	262.73	
Duckworth Tract	316.42	
Electric Light and Power Plant.....	11,606.23	
Photographic Vault	19,834.70	
Tank	2,701.00	
Barn	1,254.95	
Dormitory and Cottages—Expenditures to June 30, 1912: on account of earthquake replacement.....	7,349.54	
		<u>654,796.82</u>
Pacific Grove:		
<i>Real Estate of Herzstein Seaside Laboratory</i> (given by Dr. M. Herzstein)	2,500.00	
Davis (University Farm):		
Lands	\$103,290.00	
<i>Water right</i>	3,895.53	
		<u>\$107,185.53</u>
<i>Carried forward</i>	\$107,185.53	\$1,429,140.71

Brought forward\$107,185.53 \$1,429,140.71

Dairy Building and Livestock Pavilion	\$32,303.73	
Cottages Nos. 1 and 2.....	7,951.45	
Cottages for foreman	3,400.00	
Workshops	6,529.50	
Brooder House	1,500.00	
Seed House	3,913.00	
Poultry House	5,368.00	
Sewerage and water systems.....	18,279.00	
Dining Room Building	12,606.45	
Dormitory No. 1.....	28,000.00	
Dormitory No. 2.....	33,394.00	
Sheep Barn	4,530.00	
Horse Barn	6,880.00	
Horticultural Building	19,163.00	
Dairy Barn	17,338.00	
Silo	1,537.50	
Veterinary Science Building	7,600.00	
Office Building	6,907.00	
Viticulture Grafting Building.....	400.00	
Miscellaneous	31,251.53	
	<u>248,852.16</u>	356,037.69

Southern California Pathological Laboratory:

Real Estate at Riverside	\$2,500.00	
Buildings at Riverside	10,540.18	
Buildings at Whittier	12,821.31	
	<u>25,861.49</u>	

Imperial Valley:

Buildings at Meloland.....	3,021.53	
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Kearney Estate (5,400 acres near Fresno, bequeathed by M. Theo. Kearney)	1,000,000.00	
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Los Angeles Medical Department: Lands, Buildings and Equipment (given by the Los Angeles College Clinic Association)	\$100,000.00	
Hospital Buildings: Cost to June 30, 1912.....	4,675.60	
	<u>104,675.60</u>	

Other Real Estate:

*Congressional Lands	11,818.27	
†Public Building Lands	800.00	
Potrero Avenue lots (originally bought for the Medical Department)	10,364.39	
Real Estate in Tulare Country: Whitaker forest	9,600.00	
	<u>32,582.66</u>	

\$2,951,319.68

* This is 3954.47 acres of land still on hand from the original grant of 150,000 acres; all have once been sold, but these have come back to the University by foreclosure or cancellation of contracts.

† This is 320 acres of land still on hand from the original grant of 6400 acres; all have once been sold, but these have come back to the University by foreclosure or cancellation of contracts.

D. INVESTMENTS

Bills Receivable, Bonds, Stocks, and Real Estate, etc.

Bills Receivable:

Mortgage loans	\$1,109,397.01
Collateral loans	10,000.00
J. B. Reinstein (note as donation for University Hospital)	1,000.00
Loans from the Class of 1886 Loan Fund	2,241.30
Loans from the Class of 1895 Loan Fund	630.00
Loans from the Class of 1898 Loan Fund	200.00
Loans from the Class of 1903 Loan Fund	1,027.00
Loans from the Class of 1909 Loan Fund	1,120.00
Loans from the Class of 1911 Loan Fund	625.00
Loans from the E. A. Denicke Loan Fund	1,300.00
Loans from the Grubstake "W" Loan Fund	373.30
Loans from the Medal Loan Fund	159.82
Loans from the Special Senior Class Loan Fund	675.00
Loans from the Walton Memorial Loan Fund	872.00

\$1,129,620.43

Savings Bank Deposits:

Central Savings Bank of Oakland	\$28,493.04
First Federal Trust Company of San Francisco	21,379.50

49,872.54

Bonds:

Bear Gulch Water Company (par value)	\$164,000.00
Bohemian Club Bonds (par value)	900.00
Montgomery Avenue Bonds (par value \$22,000)	1.00
Oakland Traction Consolidated (par value \$15,000) ..	14,662.50
Sacramento Electric Gas and Railway Co. (par value \$1,000)	1,020.00
Southern Pacific Railroad 1st Mortgage Refunding 4 per cent Gold Bonds (par value \$33,000)	32,937.50
State Treasurer (vide Cal. Stats. 1899:93)	751,000.00
State Treasurer: Diverted Funds (vide Cal. Stats. 1899:93)	79,750.00
Tonopah United Water Company Bonds (par value) ..	20,000.00

1,064,271.00

Stocks:

Weinstock-Lubin Real Estate Co. (500 shares preferred, par value \$5,000)	\$5,000.00
Fireman's Fund Insurance Co. (100 shares common, par value \$10,000)	21,000.00
Sather Banking Company (200 shares Sather Banking Company, common stock, par value \$20,000; in liquidation)	2,400.00
Mackay Companies (704 shares preferred, par value \$70,400)	50,000.00
*Kennedy Mining and Milling Co. (1,200 shares common, par value \$120,000)	1.00

Carried forward \$78,401.00 \$2,243,763.97

*These stocks were received in April, 1907, as part of distribution of Doe Estate. They were valued at \$6,000, and dividends as received were credited to this valuation.

<i>Brought forward</i>	\$78,401.00	\$2,243,763.97
Bank of California (100 shares, par value \$10,000)....	20,550.00	
University Land and Improvement Co., Cloyne Court (2,500 shares common, par value \$2,500).....	2,500.00	
Stocks, Notes and Mining Claims (Thompson Fund)..	1.00	
		101,452.00

NOTE.—The University of California also holds \$400,000 stock of the Bear Gulch Water Company not valued on the books.

Real Estate and Improvements:

Real Estate in West Berkeley (4 lots on Sixth Street) \$	2,083.11
Real Estate in Escondido (76 acres)	2,000.00
Real Estate in Menlo (1,390 acres).....	20,763.25
Real Estate in Oakland (14th and Washington).....	400,000.00
Real Estate in Oakland (157 Santa Clara Avenue)....	3,800.00
Real Estate in Oceanside (75 x 100 feet).....	1,800.00
Real Estate in Redlands	5,714.10

Real Estate in San Francisco:

Johnson Building site	\$400,000.00
Johnson Building Reconstruction.....	2,839.00
Sacramento Building and site	309,396.93
	712,235.93

Real Estate on Dearborn St., Chicago (Thompson bequest) 50,000.00

Real Estate in Salt Lake City (Lot 6, Block 12, Plot E)
(Thompson bequest) 3,500.00

1,201,896.39

Balance of contracts for sale of real estate (80 feet on

Eunice St., North Berkeley)..... 800.00

Broadway Terrace lots, Oakland..... 61,000.00

61,800.00

\$3,608,912.36

E. DEPARTMENTAL ACCOUNTS AND OTHER EXPENDITURES CARRIED
FORWARD TO YEAR 1912-1913.

Anthropology	\$100.00
Bancroft Library Expense	76.07
Chemistry	5.44
Chemistry: Special equipment appropriations.....	1,328.61
Civil Engineering	1,668.37
Electric Light and Power: General construction.....	8,209.41
Equipment	441.00
Geography	11.70
Geology and Mineralogy	9.70
Lick Observatory	412.25
Lick Observatory Printing	1,161.59
Los Angeles Medical Department.....	2,465.51
Palaeontology	63.41
Pathology and Bacteriology	270.60
<i>Carried forward</i>	\$16,223.66

<i>Brought forward</i>	\$16,223.66
Physical Culture	100.35
Physics	337.04
Physiology and Physiological Chemistry.....	459.26
Repairs	476.15
Site	922.06
Storehouse	1,837.77
Zoology	165.16
Summer Session: Civil Engineering.....	1,886.26
Agricultural Experiment Station Sales Fund.....	1,071.33
Cereal Sales	252.05
Forestry Sales	111.65
University Farm; Dormitory account.....	438.68
State Appropriation; Viticulture investigations.....	93.42
Swimming Tank: Expenditures to be made good ultimately from receipts of Gymnasium Fees	11,473.27
Bath House and Equipment: Expenditures to be made good ultimately from receipts of Gymnasium Fees	3,047.45
Class of 1907 Permanent Endowment Fund Interest: for purchase of books	20.14
E. A. Denicke Library Fund Interest.....	8.47
Expenditures on the erection and furnishing of buildings, paid out of Permanent Building Fund moneys: to be made good by charges against that fund in annual installments of \$20,000 for each enterprise:	
Agricultural Hall: Erection of Building:	
Total expenditures to date.....	\$188,316.23
Less charged to Permanent Building Fund.....	60,000.00
	<hr/>
	128,316.23
Doe Library: Furnishing and Equipment:	
Total expenditures to date.....	\$183,144.90
Less charged to Permanent Building Fund.....	60,000.00
	<hr/>
	123,144.90
	<hr/>
	\$290,385.30

There is also an amount of \$107,632.84 for expenditures on purchase of Watershed Lands, to be charged to the Permanent Building Fund in annual installments of \$20,000.

F. AMOUNTS DUE FROM THE STATE OF CALIFORNIA UNDER VARIOUS APPROPRIATIONS.

General Support	\$25,000.03
Reimbursement of Income	15,500.00
Chair of Music	1,499.94
Los Angeles Medical Department: Erection of Hospital.....	4,675.60
Hog Cholera Serum	1,376.16
Insecticides and Fungicides	2,331.52
University Farm: Buildings	13,351.32
	<hr/>
<i>Carried forward</i>	\$63,734.57

<i>Brought forward</i>	\$63,734.57
University Farm: Equipment	2,192.07
University Farm: Implements, etc.	442.39
University Farm: Improvements of grounds	1,307.15
University Farm: Light, water, power and sewer.....	1,757.91
University Farm: Livestock	33.30
University Farm: Salaries	13,546.91
University Farm: Support	12,498.32
Imperial County Investigations	9,347.97
Southern California Pathological Laboratory.....	7,764.94
Southern California Pathological Laboratory Equipment.....	895.98
Riverside Buildings and Lands	5,518.49
Whittier: Erection of barn.....	28.75
Whittier: Heating plant	347.54
Whittier: Enlargement of plant.....	3,412.94
Chico: Barn.....	7.90
Chico: Fence	30.82
	<hr/>
	\$122,867.95
	<hr/>

G. ENDOWMENT FUND ACCOUNTS.

Alumnae of Young Women's Christian Association of the University of California Fund (income to be devoted to the payment of salary of the secretary of the undergraduate Y. W. C. A. of the University of California)	\$600.00
Alumni Association: Life Membership Fund (income for use of Alumni Association)	3,775.98
Alumni Hall Fund (gifts of Alumni for building of a Student Clubhouse)	9,138.30
Alumnus Book Fund	500.00
Class of 1874 Library Fund.....	52.91
Class of 1881 Loan Fund.....	1,032.56
Class of 1886 Loan Fund.....	4,486.47
Class of 1887 Library Fund.....	350.00
Class of 1895 Loan Fund.....	105.08
Class of 1897 Library Fund.....	654.56
Class of 1898 Loan Fund.....	203.44
Class of 1900 Library Fund.....	618.50
Class of 1902 Library Fund.....	125.00
Class of 1903 Loan Fund.....	1,098.47
Class of 1905 Fund (to be spent on a memorial bench and chair).....	72.09
Class of 1907 Permanent Endowment Fund (income for the purchase of books)	500.00
Class of 1907 Permanent Endowment Fund (income for the benefit of the class)	150.00
Class of 1908 Fund (income for the benefit of the class).....	255.96
Class of 1909 Endowment Fund (income for the benefit of the class).....	600.00
Class of 1909 Loan Fund (income for the benefit of the class).....	1,200.00
Class of 1910 Endowment Fund (income for the benefit of the class).....	1,350.00
P. Charles Cole Scholarship Fund.....	2,256.67
	<hr/>
<i>Carried forward</i>	\$29,125.99

<i>Brought forward</i>	\$29,125.99
Thérèse F. Colin European Fellowship Fund (given by Prof. Thérèse F. Colin for European study in French).....	10,961.94
Class of 1911 Fund (income for the benefit of the class).....	600.00
Class of 1911 Loan Fund (income for the benefit of the class).....	1,192.90
Class of 1912 Fund (income for the benefit of the class).....	1,900.00
Consolidated Perpetual Endowment Fund (sale of lands under Federal and State grants, savings of income, etc.).....	2,062,692.18
Emily Chamberlain Cook Prize Fund (given by Prof. Albert S. Cook as a memorial to his wife, for an annual prize for a poem).....	1,137.19
W. R. Davis Scholarship Fund.....	5,000.00
E. A. Denicke Library Fund (given by former Regent Ernest A. Denicke)	2,000.00
E. A. Denicke Loan Fund.....	5,188.61
Dental Endowment Fund.....	4,881.46
Doe Library Fund (bequeathed by Charles Franklin Doe; this is the balance after providing for the expenditure on erection of building up to June 30, 1912, which amounted to \$682,333.40).....	65,163.87
Cora Jane Flood Endowment Fund (gift of Miss Flood for the College of Commerce)	346,241.83
James M. Goewey Scholarship Fund.....	12,415.50
Grubstake "W" Loan Fund (given by anonymous friend).....	372.69
Hamerslag Loan Fund (income only to be used for loans to students)....	6,000.00
Hesse Memorial Scholarship Fund.....	3,800.00
Charles M. Hitchcock Endowment Fund (for lectures upon scientific and practical subjects)	10,000.00
Cornelius B. Houghton Scholarship Fund.....	3,000.00
S. C. Irving Prize Fund.....	500.00
Albert Sydney Johnston Memorial Scholarship Fund.....	3,500.00
Jucksch Donation (gift of Mary Jucksch: the income is used for purchase of books in American history).....	600.00
*Kearney Bequest (cash)	831.57
Martin Kellogg Fellowship Endowment Fund (given by Mrs. Martin Kellogg for a fellowship at the Lick Observatory).....	20,000.00
Leona Lebus Endowment Fund (given by Mrs. Martha C. Lebus in fulfillment of the will of her daughter, Miss Leona Lebus: the income is for the care at the University of California Hospital of chronic cases, preferably non-residents of San Francisco).....	4,000.00
Le Conte Memorial Fellowship Fund (given by the Alumni Association in memory of John and Joseph Le Conte).....	10,026.47
Lick Observatory Fund (balance remaining of the bequest of James Lick after erection and equipment of the Observatory).....	90,018.16
John W. Mackay Jr. Endowment Fund (given half by Mrs. John W. Mackay and half by Clarence Hungerford Mackay as an endowment for electrical engineering)	100,000.00
<i>Carried forward</i>	\$2,801,150.36

*\$25,000 was received in cash from the distribution of the M. Theo. Kearney Estate. Certain claims, etc., against the estate have been liquidated out of this amount. Whatever balance has been in this fund has been loaned to the Kearney Vineyard Company without interest.

Brought forward \$2,801,150.36

Massachusetts Relief Fund (moneys given by the citizens of Massachusetts for relief after the San Francisco fire of 1906, and, by their request, granted by the San Francisco Relief and Red Cross funds for the endowment of the University of California Hospital)	100,000.00
Medal Loan Fund (proceeds from the sale of University medals refused by Joseph B. Garber, class of 1892; Miss Katherine Felton, class of 1895, and Arthur M. Seymour, class of 1891, the medalists of their respective classes)	296.45
Men's Dormitory Fund (given by the students, etc.)	389.20
Eugene Meyer Jr. Library Endowment (for historical books)	2,000.00
D. O. Mills Endowment Fund (given by D. O. Mills for the endowment of a Professorship of Intellectual and Moral Philosophy and Civil Polity)	160,988.61
Napa Seminary Loan Fund	308.32
Paget Scholarship Fund (bequeathed by Mme. Emmanuel Marie Paget for the Professor F. V. Paget Scholarship for a student in French)	3,009.09
Philo Sherman Bennett Prize Fund (given by William Jennings Bryan for an essay on the Principles of Free Government)	574.35
Frank M. Pixley Scholarship Fund (bequeathed by Amelia V. R. Pixley for a scholarship for a student in law)	3,563.22
Prytanean Hospital Fund (gift by Prytanean Society for the equipment of the Student Infirmary)	1,014.38
Michael Reese Library Fund (gift of Michael Reese; income to be used for the purchase of books)	50,000.00
Richardson Latin Translation Prize Fund (bequeathed by Professor George Morey Richardson; income for prize in Latin translation)	1,600.00
Hermann Royer Endowment Fund (bequeathed by Hermann Royer for founding a Professorship of Political Economy)	3,875.73
Sheffield Sanborn Scholarship Fund (given by Mrs. James Horsburgh, Jr., to endow one scholarship in medicine and one in law at Berkeley and one in law at the Hastings College of Law)	15,000.00
Jane K. Sather Classical Chair Fund (the gift of Mrs. Jane K. Sather for the endowment of a chair of classical literature; any income remaining unused at the end of each fiscal year is to be added to the principal)	102,918.79
Jane K. Sather Historical Chair Fund (the gift of Mrs. Jane K. Sather for the endowment of a chair of history; any income remaining unused at the end of each fiscal year is to be added to the principal)	102,918.79
Jane K. Sather Law Library Fund (the gift of Mrs. Jane K. Sather; income to be devoted to the support of a law library)	21,543.35
Jane K. Sather Library Fund (the gift of Mrs. Jane K. Sather; income to be devoted to support in law library)	10,000.00
Jane K. Sather Historical Library Fund (the gift of Mrs. Jane K. Sather; income to be devoted to the purchase of historical books for the library)	12,461.68
Jane K. Sather Fund for the erection of Campanile and Bells (the gift of Mrs. Jane K. Sather; the principal to be used for the erection of the campanile and bells; income to be added to the Jane K. Sather Fund awaiting distribution)	225,000.00

Carried forward \$3,618,612.32

<i>Brought forward</i>	\$3,618,612.32
Jane K. Sather Fund awaiting distribution (the gift of Mrs. Jane K. Sather; income to be added to the principal; the principal of this fund will be utilized for further payments that may have to be made to beneficiaries or for inheritance taxes, or for the completion of the Sather Gate if more is needed for that purpose or for anything in the nature of expenditures that would reduce the capital to the amount donated to the University by Mrs. Jane K. Sather. What is eventually left in this fund will be divided equally between the Jane K. Sather Historical Chair Fund and the Jane K. Sather Classical Chair Fund)	51,485.47
Special Senior Class Loan Fund (donated for the purpose of providing loans to Senior students during the fiscal year ending June 30, 1912; loans are made without interest; the total fund ultimately to be returned to the donor)	1,018.35
Students' Co-operative Society Fund (this is the surplus of the Students' Co-operative Society which has been placed in the hands of the University. The University guarantees interest on this at 5 per cent per annum, this interest to accumulate semi-annually and the money to be available to be withdrawn when the Students' Co-operative Society may so desire)	11,306.95
Summer Session Endowment Fund (this is part of the surplus of the session of 1911 which has been set apart as an endowment fund; income to be used for the purpose of purchasing special equipment)	6,000.00
Willard D. Thompson Memorial Scholarship Fund (the gift of Mrs. Jennie D. Thompson as a memorial to her son, Willard D. Thompson '94, the income to be used for scholarships for students from the State of Utah)	51,725.73
Edward Tompkins Endowment Fund (the gift of Edward Tompkins for the foundation of the Agassiz Professorship of Oriental Languages and Literature)	107,282.14
University Hospital Endowment Fund.....	649.68
University Hospital Endowment Fund (J. B. Reinstein).....	1,000.00
University Hospital Endowment Fund (given by the San Francisco Maternity)	10,000.00
University Medal Fund (given by friends of the University of California; the income to be used to give a medal to the most distinguished scholar of each year)	3,896.00
Vetlin Endowment Fund (given by the students of the Vetlin School; the income to be used for the Student Infirmary).....	1,000.00
Frank J. Walton Memorial Loan Fund (given by the Class of 1883 as a memorial to their classmate. The income only from this fund is to be loaned to students. When the fund shall exceed the sum of \$20,000, scholarships at Berkeley may be established out of the surplus)	6,031.62
Barbara Weinstock Lectureship Fund (the gift of Colonel H. Weinstock, in memory of his mother, for an annual lecture on "The Morals of Trade")	5,000.00
Whiting Fund (bequeathed by Professor Harold Whiting; the income to be expended for the benefit of the Department of Physics).....	22,500.00
<i>Carried forward</i>	\$3,897,508.26

BALANCE SHEET—SCHEDULES

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Brought forward \$3,897,508.26

J. Clute Wilmerding Endowment Fund (bequeathed by J. Clute Wilmerding for the establishment and endowment of the Wilmerding School of Industrial Arts).....	449,000.00
Women's Dormitory Fund	2,066.17
Young Women's Christian Association Endowment Fund (income payable to the Y. W. C. A. to be used in payment of salary of a secretary)	5,000.00
	<hr/>
	\$4,353,574.43

NOTE.—The relation between the total endowments and the total of investments as appearing in the balance sheet, is shown as follows:

Investments	\$3,608,912.36
Loss on Montgomery Ave. bonds (litigation is now in progress to recover this amount).....	21,999.00
Loss on Highland Tract lots.....	296.71
Endowment Fund moneys loaned at interest to the Permanent Building Fund	375,507.50
Endowment Fund moneys loaned at interest to the General Fund	412,277.07
	<hr/>
	\$4,418,992.64
Endowment Funds	\$4,353,574.43
Gains in Endowment Pool Investments.....	65,418.21
	<hr/>
	\$4,418,992.64

H. BALANCES ON HAND IN FUND INTEREST ACCOUNTS, WHICH ARE USED FOR SPECIFIC PURPOSES.

Alumnus Book Fund.....	\$21.47
Class of 1874 Library Fund.....	15.08
Class of 1887 Library Fund.....	1.07
Class of 1897 Library Fund.....	35.19
Class of 1900 Library Fund.....	61.86
Class of 1902 Library Fund.....	33.73
W. R. Davis Scholarship Fund.....	85.80
James M. Goewey Scholarship Fund.....	3,200.24
Hamerslag Loan Fund.....	723.00
Charles M. Hitchcock Endowment Fund.....	1,033.15
Cornelius B. Houghton Scholarship Fund.....	394.75
Samuel C. Irving Prize Fund.....	25.00
Albert Sydney Johnston Memorial Scholarship Fund.....	45.23
Jucksch Endowment Fund.....	46.48
Martin Kellogg Fellowship Fund.....	600.00
Le Conte Memorial Fellowship Fund.....	665.32
John W. Mackay Jr. Endowment Fund.....	5,701.20
Eugene Meyer Jr. Library Fund.....	92.41
D. O. Mills Endowment Fund.....	2,381.87
Professor F. V. Paget Scholarship Fund.....	316.34
Frank M. Pixley Scholarship Fund.....	123.11
Michael Reese Library Fund.....	161.69
Richardson Latin Translation Prize Fund.....	16.80
	<hr/>
<i>Carried forward</i>	\$15,780.79

<i>Brought forward</i>	\$15,780.79
Sheffield Sanborn Scholarship Fund.....	547.52
Jane K. Sather Law Library Fund.....	753.79
Jane K. Sather Historical Library Fund.....	369.07
Jane K. Sather Library Fund.....	872.04
Summer Session Endowment Fund.....	207.38
Willard D. Thompson Memorial Fund.....	3,467.20
University Medal Fund.....	333.29
Veltin Endowment Fund.....	67.78
Barbara Weinstock Lectureship Fund.....	1,687.93
Whiting Fund	3,002.26
J. Clute Wilmerding Endowment Fund.....	7,432.55
	<hr/>
	\$34,521.60

J. BALANCES ON HAND IN DONATION ACCOUNTS.

Agassiz donation	\$97.30
Belladonna Research, donation for.....	75.00
Boalt Hall of Law, donations for building (the total donations to be received will amount to \$150,000, which will be applied toward the cost of erection of building).....	106,175.80
Class of 1910, donation for bridge over Strawberry Creek.....	112.08
Tracy Crane, Scholarship for.....	62.50
Ethel W. Crocker, donation for Mexican Archaeological Research.....	1,037.66
Ethel W. Crocker, donation for Physiological Library Books.....	54.24
William H. Crocker, donation to Lick Observatory for apparatus.....	292.86
Dental Department Library Fund.....	17.70
Margaret B. Fowler, donation for Zoology.....	254.02
J. F. Fugazi, donation for Architectural books.....	100.00
Gown Fund (for purchase of President's academic gown).....	84.77
Greek Theatre, donations for marble chairs.....	1,092.66
Mrs. Hearst, donation to Lick Observatory for swimming pool.....	450.00
Dr. M. Herzstein, donation for Physiological Laboratory.....	775.76
Bust of Professor Hilgard, donations for.....	309.85
History I, donation for books.....	81.93
E. C. Hutchinson, donation for books.....	60.00
Irish books, donation for.....	57.17
Mary Lake Memorial, donation for books.....	554.65
Lick Observatory, donation for publication of Dr. E. E. Barnard's photographs	16.00
Lima Bean Investigations, donation for.....	100.00
	<hr/>
<i>Carried forward</i>	\$111,861.95

BALANCE SHEET—SCHEDULES

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<i>Brought forward</i>	\$111,861.95
D. O. Mills, donation to Lick Observatory for Southern Hemisphere Expedition	2,331.22
James K. Moffitt, donation for books.....	79.49
Native Sons of Golden West Fellowship.....	2,850.00
Nitrogen Fertilizers, donation for investigation of.....	102.95
Richardson Donation to Library	50.00
Sather Gateway donation, balance on hand.....	7,714.06
San Jose High School Scholarship	125.00
Spinello Library donation	46.91
F. M. Smith Fellowship	1,500.00
Claus Spreckels, donation for books.....	349.81
Student Infirmary, donations for.....	293.07
Caroline Thorsen donation to Library for Anatomy books.....	12.59
Palaeontology, donation for, by "A friend".....	220.66
Stadium, donations for.....	100.00
Tennis Court, donations for.....	295.50
University Hospital, donation for X-ray apparatus.....	500.00
	<hr/>
	\$128,433.21

K. BALANCES ON HAND TO BE USED FOR SPECIFIC PURPOSES.

Library sales of supplies.....	\$217.00
Library Exchange	72.29
Adams Fund Sales Account.....	114.54
California Educational Butter Scoring Contest.....	363.04
Fertilizer Control	11,763.59
Insecticide and Fungicide registrations.....	1,243.35
Hog Cholera Serum, sales of.....	2,554.58
Southern California Pathological Experiment Station sales.....	54.40
University Farm: Creamery sales	3,690.28
University Farm: Poultry sales	949.94
University Farm: Sales fund	9.25
University Farm: Shop sales	29.00
University Farm: Stock sales fund.....	1,788.28
University Farm: Students' deposits	831.82
University Farm: Veterinary sales	54.05
Viticultural sales	76.97
Sale of a brief account of Lick Observatory.....	516.46
Sale of Keeler Volume.....	189.00
Sale of Miss Shinn's Pamphlet.....	110.96
Sale of Tebtunis Papyri.....	351.72
Sale of "Zoe"	14.27
State Appropriation: Cereal Investigations	32.76
State Appropriation: Farmers' Institutes	2,021.53
State Appropriation: Plant Diseases, Northern.....	336.92
State Appropriation: Affiliated Colleges (improvement of grounds).....	326.95

Carried forward \$27,712.95

<i>Brought forward</i>	\$27,712.95
State Appropriation: Reimbursement of income (applicable to year 1910-1911)	
*Summer Session Fees:	
Summer Session	\$23,644.93
Home Economics	337.75
Manual Training	373.00
Montessori Method	40.00
Public Health	240.00
	24,635.68
Musical and Dramatic Entertainments	1,824.30
Students' Infirmary, excess of receipts over expenditures to date.....	7,407.25
	<u>\$61,580.18</u>

L. SUNDRY CREDITORS.

Sundry Vouchers (bills approved for payment).....	\$65,889.51
Treasurer's Advances (bills already paid by Treasurer's advance checks)	77,860.26
Class of 1907 Permanent Endowment Fund Interest (payable to Secretary of class)	40.13
Class of 1909 Permanent Endowment Fund Interest (payable to Secretary of class)	22.88
Class of 1910 Permanent Endowment Fund Interest (payable to Secretary of class)	39.40
Class of 1911 Permanent Endowment Fund Interest (payable to Secretary of class)	37.86
Class of 1912 Permanent Endowment Fund Interest (payable to Secretary of class)	15.79
Mrs. Thérèse F. Colin European Fellowship Interest.....	17.26
Deposits on Plans.....	80.00
Deposits on Faculty Shower Keys.....	13.50
Certified checks accompanying bids, returnable to contractors.....	1,032.87
Sundry Creditors	193.88
Students' Deposits:	
Agriculture	\$67.40
Anatomy	60.00
Bacteriology	46.20
Botany	156.25
†Chemistry	2,708.16
Civil Engineering	49.00
Dairy	17.00
Diplomas	4,272.10
Histology	5.00
Key Rental	1.50
Library	781.00
Mechanics	208.70
Mechanics' Padlocks	64.45
Medicine	181.95
<i>Carried forward</i>	\$8,618.71
	<u>\$145,243.34</u>

*In addition to these, certain fees will be retained from Chemistry and Physics.

† Some portion of these will be ultimately credited to Summer Session.

BALANCE SHEET—SCHEDULES

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<i>Brought forward</i>	\$8,618.71	\$145,243.34
Mineralogy	3.00	
Mining	155.34	
*Physics	995.55	
Physiology	32.80	
Psychology	84.50	
Zoology	135.65	
Zymology	20.50	
		10,046.05
Summer Session:		
Account 1908.....	\$1.07	
Account 1909.....	3.80	
Account 1910.....	7.44	
Account 1911.....	10.00	
Account 1912.....	385.38	
		407.69
		<u>\$155,697.08</u>

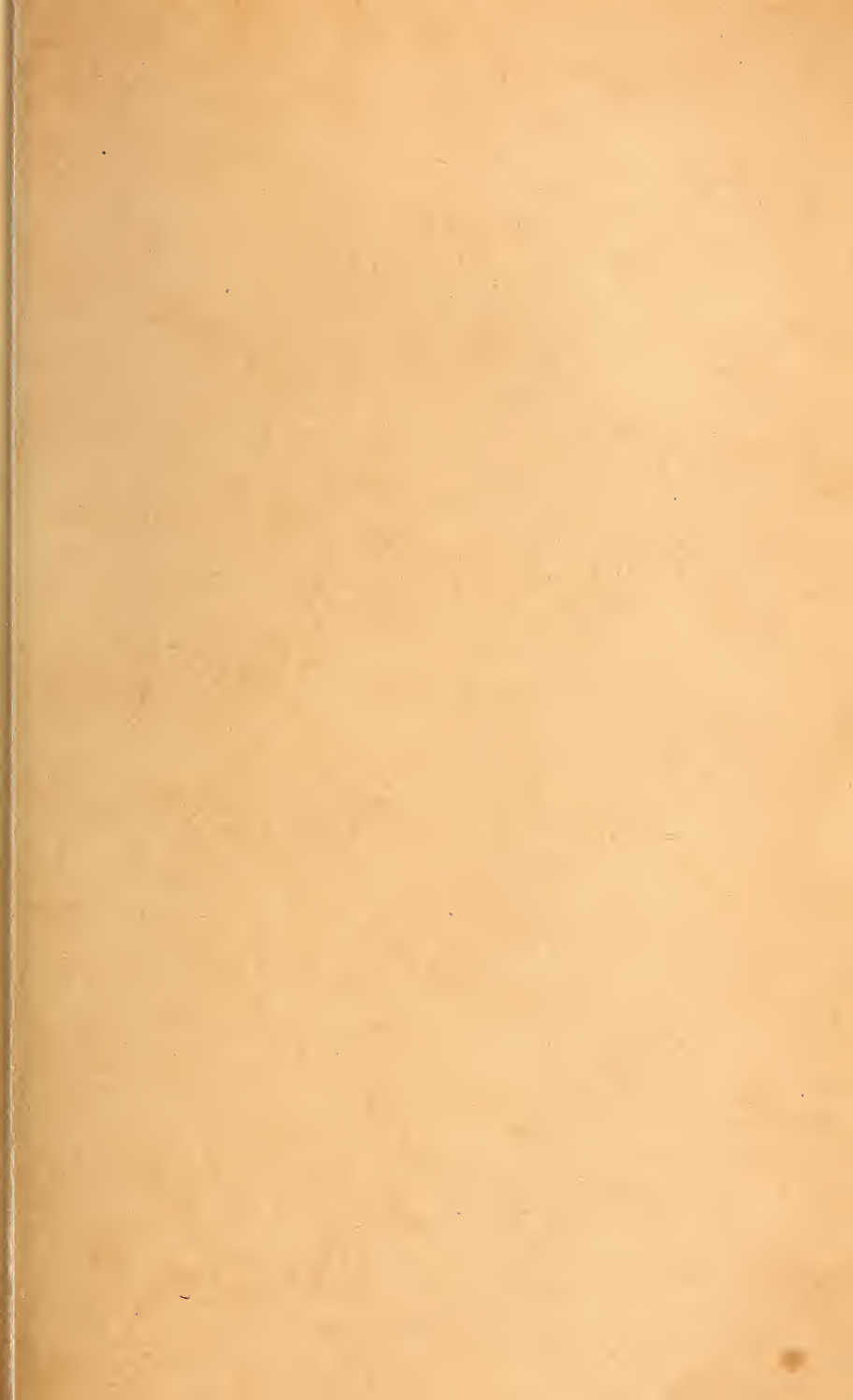
*Some portion of these will be ultimately credited to Summer Session.

UNIVERSITY OF CALIFORNIA—BALANCE SHEET, JUNE 30, 1912
Letters refer to Preceding Schedules

ASSETS		LIABILITIES	
Real Estate and Improvements:		University of California (representing University property in general other than that held for investment purposes)	
A.—Real Estate in Berkeley	\$1,424,368.46		\$8,793,906.34
B.—Buildings and Improvements in Berkeley	3,164,709.01	G.—Endowment Fund Accounts	4,353,574.43
C.—Real Estate and Improvements not in Berkeley	2,951,319.68	H.—Fund Interest Accounts: Balances on hand of the income of endowments	34,521.60
D.—Investments:		J.—Donation Accounts: Unexpended balances of donations	128,433.21
Bills Receivable	\$1,129,620.43	K.—Balances on hand restricted to use for specific purposes	61,580.18
Savings Banks Deposits	49,872.54	L.—Sundry Creditors	155,697.08
Bonds	1,064,271.00	Permanent Building Fund	24,172.71
Stocks	101,452.00	Losses and gains in Endowment Pool Investments (increase in the valuation of properties in which Endowment Pool moneys have been invested)	65,418.21
Real Estate and Improvements held as investments	1,201,896.39		
Balance of Contracts for sale of real estate	61,800.00		
	3,608,912.36		
See note at foot of page 505 as to relation between endowment and investments.			
E.—Departmental accounts and other expenditures carried forward as a charge against 1912-1913	290,385.30		
F.—Amounts due from the State of California under various appropriations	122,867.95		
Sundry debtors	49,235.51		
Suspense Account, Turner mortgage	47,000.00		
Losses in Investments:			
Montgomery avenue bonds	\$21,999.00		
Highland Tract lots	296.71		
	22,295.71		
	\$11,681,093.98	Carried forward	\$13,617,308.76

<i>Brought forward</i>	\$11,681,093.98	<i>Brought forward</i>	\$13,617,303.76
W. A. McKowen defalcation	44,120.10		
Equipment:			
General	\$1,231,270.97		
Bancroft Library	250,005.00		
	<u>1,481,275.97</u>		
Revenue: Overdraft to date	15,406.56		
Cash:			
I. W. Hellman, Jr., Treasurer ..	\$368,766.67		
Cash in hands of departments			
deposited with Treasurer	2,277.98		
after June 30, 1912			
Contingent Funds	23,129.63		
Certified Checks (accompanying			
bids)	1,032.87		
Wells, Fargo & Co., deposit			
account	200.00		
	<u>395,407.15</u>		
	<u>\$13,617,303.76</u>		<u>\$13,617,303.76</u>

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University of California Bulletin

THIRD SERIES. Vol. VII, No. 6

ANNUAL REPORT

OF THE

PRESIDENT OF THE UNIVERSITY

1912-13

DECEMBER, 1913

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1913-14. No. 7

1. Announcement of Courses, 1913-14. July.
2. Circular of Information, Academic Colleges. August.
3. College of Medicine, 1913-14. September.
4. Catalogue of Officers and Students. September.
5. University Extension Division. Bureau of Correspondence Instruction. October.
6. Register, 1912-13. November.
7. Annual Report of the President, 1912-13. December.

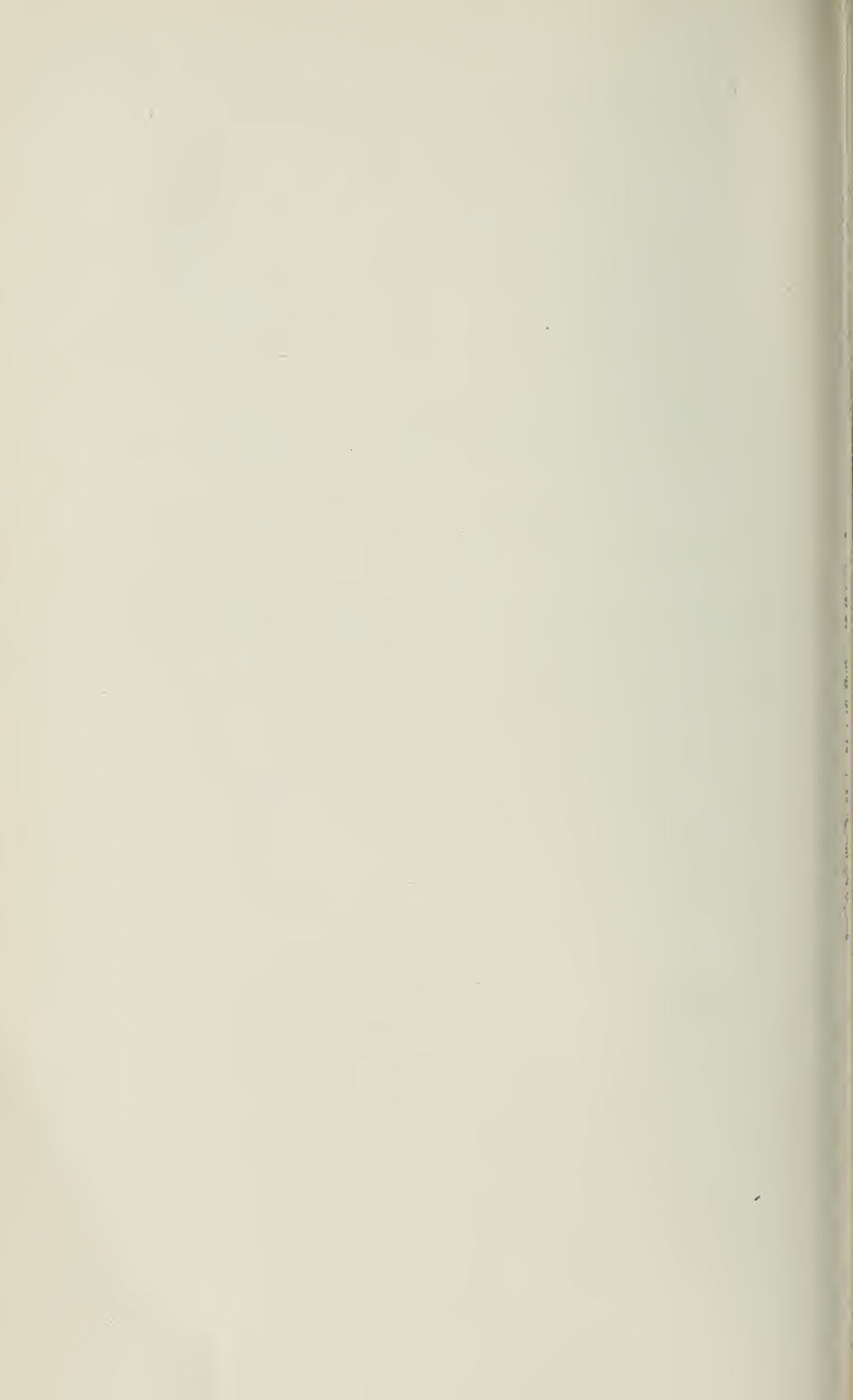
UNIVERSITY OF CALIFORNIA

Annual Report of the President of
the University on behalf of the
Regents to His Excellency the
Governor of the State of California

1912-1913

UNIVERSITY OF CALIFORNIA PRESS
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1913



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REPORT OF THE PRESIDENT OF THE UNIVERSITY

UNIVERSITY OF CALIFORNIA,

BERKELEY, December 18, 1913.

*To His Excellency, Hiram Warren Johnson,
Governor of the State of California.*

Sir: In the absence in Europe of President Benjamin Ide Wheeler I have the honor to submit the following annual report of the President of the University of California. The last report of the President was dated November 30, 1912; the following report covers the twelve months ensuing. President Wheeler left Berkeley at the conclusion of the last university year to spend the summer in Europe. The Regents of the University extended to him a six months' leave of absence which, after his arrival in Europe, it seemed advisable for him to accept in the interests of his health. The period has been spent by President Wheeler and his family in Germany, Italy, Greece, and Egypt. Private advices indicate that he will reach New York on December twenty-first and Berkeley about the opening of the new year. This is the only absence from the University during an academic year which President Wheeler has taken for purposes of rest or recuperation since his appointment as President in 1899.

The University of California continues to grow rapidly in point of numbers. The total undergraduate enrollment in the colleges at Berkeley for the year August, 1912, to May, 1913, was 4,667, of whom 2,821 were men and 1,846 were women. Of this number 4,094 (2,527 being men and 1,567 being women), were

enrolled as undergraduates in the following colleges: Letters 176, Social Sciences 1,306, Natural Sciences 1,077, Commerce 287, Agriculture 455, Mechanics 318, Mining 132, Civil Engineering 224, Chemistry 60, Medicine 59. The matriculation of students during the present term indicates that the total enrollment for the current academic year, 1913-14, will far exceed that of the last academic year and all previous years. The summary of students registered to October 1, 1913, shows 4,325 undergraduate students in the colleges at Berkeley, 577 graduate students at Berkeley, 314 in the Affiliated Colleges in San Francisco distributed between Law 79, Medicine (3rd and 4th years only) 31, Dentistry 90, Pharmacy 114, or a total in all colleges of 5,216 students. If to this figure be added the 2,363 students who matriculated in the Summer Session, June 23 to August 2, after making the proper deduction for 543 duplicate registrations, we have a total of 7,036 students who have matriculated in various departments of university instruction since the end of the last academic year. These numbers do not include students at the San Francisco Institute of Art, Wilmerding School of Industrial Arts, or the University Farm School at Davis, nor students in university extension, short courses in agriculture, or Farmers' Institutes. The graduate school shares this notable increase. By September first of the present term 562 graduate students had registered, of whom 517 had filed study cards, the discrepancy being explained in part by 15 withdrawals, and 30 presumably working in absentia. Of the 517, 296 were men and 221 women. The corresponding figures for the previous year were 211 men and 214 women, showing an increase in the number of graduate men students of over 40 per cent. About 50 per cent of this graduate student body are graduates of the University of California. The remaining 50 per cent come from institutions in all parts of the United States, besides 13 foreign institutions. Stanford University and Pomona College send us the largest number of graduate students. The departments showing the largest number of graduate students are as follows: Jurisprudence 60, History 55, English 46, Medicine 39, Chem-

istry 25, Education 24, German 24, Zoology 22, Mathematics 20, Agriculture 19, Latin 18, Economics 17, French 16, Philosophy 13, Physics 13, Architecture 11, Political Science 10, Spanish 10.

So notable an increase in the general university enrollment as is presented by the above figures is from many viewpoints highly gratifying. It does, however, cause embarrassments. No ordinary foresight could have predicted this degree of increase nor made adequate preparation for its coming. Nor has the income of the University at all kept pace with the growth in enrollment and the multiplication of responsibilities. The addition this term to the student body at Berkeley of 1,992 new students, 1,477 in the freshman class alone, presents three problems: first, the assimilation of this new material to the spirit and temper of the University; second, the organization of class instruction; third, the provision of adequate housing. It is proposed to say a few words in regard to each of these problems.

For the assimilation of each great increment of newcomers the University has come to rely primarily upon the loyalty and activity of the undergraduate body. Participation of the student body in the moral and disciplinary control of the University was greatly extended by President Wheeler about 1901. In that year the organization known as the Associated Students of the University of California emerged and this body, growing each year in public confidence and in financial and administrative stability, continues to be the central organization in the life of the undergraduate students. Membership is secured by a payment of a charge of \$2.50 a term, which entitles the holder to a subscription to the Daily Californian, participation in elections, and to a considerable range of privileges, including free admission to athletic games (except the annual football contest with Stanford University), membership in the Co-operative Society, and the opportunity for taking part in the various forms of student activity. An annual election of officers for the ensuing year is held each April at which time there are chosen a President, Vice-President, and Secretary. Every other year a Graduate

Manager, who has charge of the financial responsibilities of the Association, is chosen for a biennial period. The chief administrative body of the Associated Students is the Executive Committee composed of the four above mentioned officers, a faculty member and alumnus member appointed by the President of the University, and a representative of the Big "C" Society, which comprises the athletic interests of the University. This committee manages all athletic contests, arranges, subject to the President's approval, a calendar of student functions for the entire year, and leads in the decision of all matters of undergraduate policy. In addition to the Executive Committee there is a Student Affairs Committee which took definite form about 1906, to which are entrusted matters involving student conduct and discipline. This Committee is composed of the President of the Associated Students and four other senior men students selected by him and associated with him in the examination and recommendation of action in all cases involving dishonorable conduct in examinations or behavior prejudicial to the best interests of the University. In 1910 there was created a women's Student Affairs Committee for the handling of similar cases among women. The above committees constitute the administrative machinery. Their effectiveness rests upon the support to University policy secured by weekly meetings of the senior class known as "Senior Men's Singing" and "Senior Women's Singing." These gatherings, which began a dozen years ago in an informal assembling of senior men on North Hall steps, have become the most generally effective force for the creation of student opinion. Discussions at the various honor societies in the University and at fraternity and house club meetings greatly contribute to the same end and tend to disseminate the views that spring from the experience and loyalty of the senior class. The responsibilities of welcoming newcomers, particularly at the great fall enrollment are taken seriously by the students of previous experience. The University has grown to such proportions that the intense spirit of class rivalry has largely disappeared, and its place has been taken by a broad and intelligent loyalty to the

interests of the University as a whole. In this effort members of the faculty co-operate in all possible ways. The results of a decade of experience appear to fully justify dependence upon student opinion and student conduct of undergraduate affairs.

There are in the University 31 fraternities and 13 sororities with a total membership of approximately 805 undergraduate men and 397 undergraduate women. These, with one exception, are Greek letter fraternities and affiliated with national organizations. Closely associated with these Greek letter fraternities are the house clubs, which are local in origin and without national connections, but in many cases seem to be as well established and to represent as close a fraternal spirit as the fraternities and sororities. Altogether some 33.39 per cent of the students belong to these organizations and unless they have homes in the immediate vicinity of the University find their living accommodations in the chapter houses. There seems to be here little or none of the antagonism between fraternity and non-fraternity students that is reported present in certain American institutions. The student body seems to be too large and to have too many points of contact in differing activities to allow the building up of any partisan spirit between fraternity and non-fraternity students. In a general way fraternities have been wise in not seeking to control undergraduate affairs, but in rather devoting their efforts to the social and moral development of their members. Fraternities and house clubs in general have the hearty good will and sympathy of the faculty of the University of California. The number of fraternities which fail to meet the reasonable expectations of the University and which do not appear to reflect the best that the University stands for, is very small, and represents a waning tradition rather than a gathering force. The majority of these organizations make a serious effort to guide and helpfully restrain the conduct of new members. An ardent competition for standing in scholarship prevails. For the past five years the scholarship of all fraternities and house clubs has been compiled by the Recorder of the Faculties and the precise standing of every such organization determined. This

information is of very great service to the Dean of the Lower Division, by whom it is transmitted confidentially to each chapter at Berkeley as well as to young men and women who are invited to join fraternities or clubs, and who, before accepting these invitations, desire to be advised concerning the scholarly standing of the organizations which have bidden them.

The scholarship standing of students in fraternities and sororities shows steady improvement, but is still probably somewhat lower than the average scholarship record of the student body as a whole. The highest scholarship grade assigned by the University is grade 1; grade 2 represents strong though not excellent work, and grade 3 represents work which is either barely passed or fair. The average grade for students in the men's fraternities, January to May, 1913, was 2.397, for men in house clubs 2.251. In the same session the women in the sororities made an average grade of 2.040 and the women in house clubs a record of 1.896. All of these records showed a distinct advance over the records for the three years immediately preceding. There are no recent statistics showing precisely the average standing of students not members of organizations or of the student body as a whole. Three or four years ago the average scholarship of men's fraternities was lower than the average scholarship of men not members of fraternities, but with the increased attention given by the fraternities to scholarship standards in recent years this disparity has been less noticeable. The high scholarship standing reached by the house clubs both for women and for men is gratifying. By way of comparison with the foregoing averages certain statistics compiled annually by Professor W. Scott Thomas, the University Examiner of Schools, will be of interest. The yearly index figure showing the average scholarship standing of freshmen from the public high schools of California has for several years ranged between 2.44 and 2.46, these averages being considerably higher than for earlier years (2.51, 2.57). Such disadvantage in point of scholarship as may attach to certain of the fraternities is probably explained by the considerably increased social opportunities of the members of these

organizations, but there is undoubtedly a certain compensation in the social cultivation and moral discipline which fraternity and club life affords.

In the second place, the growth of numbers is overtaxing the teaching force of the University. It has become customary to offer relatively few courses in the "Lower Division," that is, the freshman and sophomore years, and afford large opportunity for specialization in the "Upper Division." This practice makes early courses in the University very large. There are 27 classes this term in which the enrollment is over 150 and in nine cases the enrollment exceeds 350. The work is conducted by lectures and section meetings. The plan offers opportunity for the freshman men and women to listen to the lectures of able and inspiring instructors, but permits little opportunity for acquaintance. Section meetings are held preferably once a week and are conducted by assistants, usually graduate students. The method places large individual responsibility upon freshmen, for which frequently they are unprepared. It limits to small proportions recitation method and reduces the personal oversight of the student to a minimum. It is, however, an economic method of instruction and one which the great numbers of students and the instructional limitations of the University require.

Forty to fifty students would seem the maximum number that permits actual acquaintance between instructor and pupils, class discussion, individual conferences, and personal oversight of reading and investigation. The work in some departments by tradition is essential to a general education and in others it directly contributes to professional training. Classes in these departments naturally tend to be large. On the other hand, there are certain departments maintained by the University which more exclusively represent the state's interest in research along highly specialized lines. The number of students seeking instruction in them is necessarily limited and classes are correspondingly small. However, a number of "Upper Division" courses approximate an attendance of a hundred, or more than twice the number that it is feasible to instruct through

methods of personal contact between professor and pupil. Here again the fact that the growth in numbers has outstripped resources tends to encourage unduly large units of instruction.

Finally the problem is complicated by the increasing inadequacy of the university buildings to house so great a company as is now represented by the teaching and student body. Six permanent building units in the Phoebe A. Hearst Building Plan have been constructed on the campus in recent years. They are California Hall, Hearst Mining Building, the Doe Library, Boalt Hall of Law, and Agriculture Hall. Numerous buildings of a temporary character have also been erected. In spite of these additions the classroom accommodations have grown relatively less in proportion to numbers. A large part of the space obtained through the new buildings has been devoted to offices, laboratories, and seminar rooms and has not contributed to the solution of the problem of classroom facilities. The Recorder of the University has tabulated an interesting comparison of the situation in this respect, as it was fifteen years ago when President Wheeler first came to Berkeley, and as it is today. There were in 1898 1,565 students organized for instruction in 281 classes. There were 47 available recitation rooms. The present term, August to December, 1913, there are 4,902 students enrolled in 578 classes and not more than 66 available recitation rooms for their housing. Thus the approximate increase in the number of students has been 200 per cent, increase in the number of classes, laboratory classes being omitted, more than 100 per cent, while the increase in the number of available classrooms is scarcely more than 40 per cent. Furthermore, the majority of the 66 rooms available for general class work are located in buildings especially constructed for departmental purposes and are subject to departmental restrictions and cannot be freely assigned for general class work. It would appear that California is exceptionally poor in this provision. Precise information has not been obtainable from any large number of American universities, but it has been learned that the University of Michigan has 120 rooms available for general class assignments, and Columbia University

on its uptown campus, where are located the departments corresponding to our colleges in Berkeley, has 103 such rooms. Neither of these universities has as large an undergraduate student body nor presumably as large a number of classes and sections to be accommodated as has the University of California. The splendid new buildings put up in recent years have not had the classroom need in view. The great Mining Building has only three lecture and recitation rooms, the conversion of the Bacon Library to the uses of the departments of geology and mineralogy, geography, and palaeontology resulted in an increase of only two classrooms, and the new Agriculture Hall has only three classrooms and Boalt Hall only four. This matter is of such importance that the tabulation prepared by the Recorder showing new classrooms built during the last fifteen years may be inserted here :

North Hall in 1898 had 22 rooms, but has now 25 rooms, a gain of.....	3 rooms
Architecture Building	1
Agriculture Hall	3
Bacon Hall	2
Boalt Hall of Law	4
California Hall	6
Chemistry Building	1
Hearst Memorial Mining Building	3
Hygiene and Pathology Building	1
Museum of Casts	1
Spreckels Physiological Laboratory	1
Total	26

However, from this aggregate we must deduct certain losses due to the conversion of old classrooms to other uses : namely,

South Hall	1
East Hall	2
Botany Building	1
Mechanics Building	2
A total of.....	6

making only 20 classrooms *added* to the number we had fifteen years ago.

The variations of the University curriculum do not permit the continuous use of all classrooms. Regular classes begin at eight o'clock in the morning and for the most part end at five o'clock in the afternoon. The eleven o'clock hour in the forenoon is, however, used by the men for military drill and by the women for the hygiene lectures, and the interest of outdoor sports and athletics recommend the assigning of as few classes as possible after four o'clock in the afternoon. Consequently the classroom may be regarded as having its maximum use if it is occupied by classes thirty hours a week, or six hours a day for five days. The present congestion recommends the fullest possible use of the university plant, and more classes are being set for evening hours than heretofore, while in old North Hall, which is the main university recitation building, 661 classes have met each week as compared with 457 classes meeting there each week 15 years ago.

The Regents of the University have this fall given much consideration to the above stated needs. The Grounds and Buildings Committee has met frequently and upon the recommendation of this Committee the October meeting of the Regents was held upon the University campus and occupied two sessions morning and afternoon, the special order of business being buildings and grounds. To afford larger space for the administrative offices in California Hall it was determined to erect a building of temporary materials for the department of drawing, removing classes in this department from the upper story of California Hall. This new Drawing Building is approaching completion. The other imperative needs are an addition of some ten or twelve general recitation rooms, one large classroom or "Auditorium" with a capacity of 1,000 to 1,500, and a chemical laboratory for freshmen with a capacity of 1,000. The first of these needs has been sufficiently explained. The "Auditorium" is needed for those classes in required subjects for freshmen which embrace the entire class and for other large classes which are prerequisites to advanced work. For example, there are 888 students in men's hygiene this term, 571

students in women's hygiene, this being a required subject. There are 687 in freshman chemistry, 637 in freshman history, 470 in elementary economics. The largest recitation room is 101 California Hall, which seats 490 students. Men's hygiene and freshman chemistry have been accommodated in this room in two sections, requiring a repetition of the lecture by the instructor. To find a room large enough for women's hygiene and freshman history, without dividing the class, the department of physical culture generously put Harmon Gymnasium at the disposal of this work three forenoons each week. This adjustment enabled these classes to remain undivided this year, but the arrangement can only be regarded as temporary. The moving of chairs and additional janitor work imposes an expense of practically a thousand dollars for the year and the arrangement works an inconvenience to the department of physical training which in justice should not be continued. A large recitation room of the proportions suggested above would not only provide for these great and growing classes but, if furnished with stage and dressing rooms, would be of important assistance to student dramatics and avoid the necessity of engaging an Oakland theatre for the several dramatic presentations of the year. The Chemistry Laboratory is an especially urgent need. The growth of the department of chemistry has been very great and this science is an essential one for students in a wide variety of advanced courses. There are 687 students enrolled in freshman chemistry this fall. It would be short sighted to plan a laboratory with a less capacity than a thousand.

The above mentioned needs are only those which are most pressing—which, in fact, ought to be satisfied before the beginning of another academic year. They do not provide for the anticipated needs five years from now, if the numbers in the University continue to grow as they have grown in the last five years. Nor is there reason to believe that the rate of increase will diminish. There are more than 210 high schools in the state, many of these with an attendance approximating a thousand students, and among this great body of secondary pupils

there seems to be a growing conviction of the desirability and necessity of university training. The cities and rural districts of the state have made lavish provision in the way of buildings and equipment for secondary instruction, and the great popular interest centering in the enlargement and expansion of these secondary schools is a sufficient explanation of the remarkable trend of students to the University. The building situation here calls for some extraordinary provision to meet the anticipated needs of the next five years and of the decade.

Notable advance has been made the past year in the organization of the Department and College of Agriculture. The Legislature of 1913 made a special provision of one million dollars for this branch of university work for the biennium ending June, 1915. It has been found possible to attract to the faculty a number of men of highest reputation in agricultural work. At the opening of the next academic year a course in Forestry will be added to the widely diversified efforts of the Department of Agriculture. The spirit actuating the great corps of experts who are being brought together and organized by the Dean and Director is noble and splendid. Their aim is to organize and to elevate country life, by the application of scientific methods to relieve agriculture of that burdensome toil which at present often excludes country men and women from due participation in social and intellectual pursuits, to infuse the country with that spirit of co-operation which is an evidence and instrument of the highest form of social order. Much attention has been called in recent decades to the problem of the city. The constant growth of urban communities at the expense of rural has awakened apprehensions of the results of city life. It seems to be the disposition of men of our race to regard city life as abnormal and unhealthful and the tendency of population to crowd into cities as an indication of depravity. It is perhaps more just to the facts to hold that the city has always been the center of civilization, the field of man's highest political and intellectual achievements, and that the widespread movement into the city limits observable to-day is directly occasioned by the growing enlightenment and

awakening of the entire body of population and is in obedience to the highest instincts of human kind. Cities present dangers, but they none the less have the resources, the wealth, the intelligence and organized public spirit to remedy these dangers and to solve their problems. There is an enormous accumulated experience in regard to city life that is at the service of the race. Our political science from the days of Aristotle has concerned itself primarily with cities and such instruction as our time possesses for the solution of social questions applies mainly to city life and city activities. On the other hand, the country has suffered from neglect and depreciation and it continues to suffer because of a widespread sentiment of the inherent wholesomeness of country life which prevents a realization of the harshness and barrenness of existence which too frequently is the lot of the agriculturist and his family. It is the country even more than the city which is menaced by the migration of the more active elements from the rural districts into urban. It is the rural districts moreover which may be most prejudicially affected by the settlement of foreign immigrants. The city is a great assimilator. It is able to take huge increments of foreign-born population and rapidly mould them and their children to the standards of American life. The country, with its sparse population, its isolation, and its unorganized social activity, has little such power. Foreign immigrants located in communities in the country tend to remain foreign, to perpetuate their foreign speech and prejudices, and to long resist incorporation into the American nation. All of these considerations give the highest importance to the work which lies before the Department of Agriculture of the University of California. The state is already more than sixty per cent urban. Its immense area, the great variety of its industries, the isolation of many of its small communities, the considerable foreign element settled in nearly homogeneous farming communities, and the much larger European immigration which is anticipated in the immediate future call for the organization and support of just such a force as the Department of Agriculture represents. The workers in this department have a programme;

they have the best knowledge of rural life, its opportunities and its needs, which the present day affords. They have a spirit which may well be a model and inspiration to every department of the University. There is every justification of the wisdom of the Regents and of the Legislature in making the splendid current provision for this department.

Closely akin in its purpose to spread the influence of the University over the state is the recently organized Department of University Extension. This work was first organized in the University during the year 1902-03. A number of university extension centers have since that date maintained courses of lectures given by several of the best qualified men in the University. This work, however, was limited to the lecture side and it was possible to organize centers only in towns of considerable population and of relatively high intelligence. The University now proposes to reach not the larger communities alone but smaller communities, rural districts, and individuals. During the last year extensive discussion of the matter took place and a comprehensive plan was formulated by a committee appointed by the President, and the plan was approved by faculty and Regents. Professor Ira W. Howerth of the Department of Education was appointed Director of University Extension. A special appropriation for the maintenance of this work was sought from the Legislature. This provision failing of executive approval the Regents this term undertook the support of university extension work out of the general funds of the University. A widespread popular interest had been aroused by the limited publicity given to the plan and 4,025 letters of enquiry had been received previous to October first. The work has been organized in five divisions or bureaus. At the date of writing this report the Bureau of Class Instruction is conducting 21 classes with an estimated attendance of 645; in the Bureau of Correspondence Instruction 16 university departments have offered a total of 89 courses, 51 of which are in progress with an enrollment of 429 pupils; in the Bureau of Lectures ten lecture courses are in progress in different centers of the state; in the Bureau of Public Dis-

cussion a large number of bulletins, bibliographies, briefs, and programmes have been issued and distributed to high schools, clubs, and individuals. Over a hundred communities of the state have in this way been served, including 31 high schools, and four classes have been organized for study. In the Bureau of Municipal Reference there has been a considerable distribution of bulletins and specific enquiries from public officials, civic organizations and from individuals have been answered. The work has been organized on a basis of careful economy. Three of the bureaus are being conducted by members of the University community without charge. The very important Bureau of Correspondence Instruction is conducted by a professor in the University for a modest additional remuneration. The co-operation of the University departments is wholly voluntary and so far as possible without additional expense. Instructors offering correspondence courses are giving their services gratis. No remuneration is paid except for work done away from the University and in these cases the remuneration is nominal. There does not appear to be a falling off in popular interest and demand. If this first year of experiment is justified it will merit a much larger financial support than it is possible to afford it at the present time. Only a special appropriation and the liberal engagement of special officers and instructors for this work can place University Extension upon a basis where it is capable of serving the state widely and well.

The President has repeatedly called attention to the extent to which the University has benefited and continues to benefit from private generosity. The equipment and maintenance of the University has, in large part, been shared with the taxpayer by the national government and by disinterested friends. The list of private donations received during the last fiscal year is printed as an appendix to this report. It includes a great number of items and hundreds of acceptable donations. Particularly should be mentioned the endowment of property valued at much more than a million dollars for the George Williams Hooper Foundation for a School of Medical Research, and the gifts

amounting on Commencement day to \$479,250, but at the present day reaching over \$600,000 for a new Medical School and Hospital. Notable also is the gift of property to the Scripps Institution for Biological Research coming from the original founders of this splendid adjunct to the University's scientific work, the bequest of \$100,000 for the endowment of a scholarship fund from Mrs. Carrie M. Jones, the gift of \$30,000 toward additional equipment and improvement of approaches given by Mrs. Hearst for the Hearst Memorial Mining Building, and the gift from the Associated Students of property at College Avenue and Sylvan Way valued at approximately \$30,000.

The proper limits of this report do not permit anything like a complete or detailed review of the University's activities. For fuller statements attention must be invited to the departmental reports and the reports by different officers of the University and of the Affiliated Colleges and schools herewith presented. The matters treated above are those which have come to the particular attention of the undersigned during the months of the present term. In inviting attention, however, to attached reports I cannot forbear directing notice to the state-wide distribution of the University's efforts and interest. These extend from the forests of Mendocino County to the waters of San Diego Bay. It is truly a University in its comprehensiveness, in its aspiration to embrace the whole field of higher instruction and co-operate with all private and public agencies for the promotion of the larger material and spiritual needs. It owes its origin to private foresight and devotion, to the wisdom of the Federal government, to the early care of the commonwealth for popular enlightenment and for training in leadership; and it continues to depend and must in the future depend upon all of these sources of income and support. It is the great force upon which this state must rely for unification and solidarity. The immense geographical length of California, its subdivision through physiographic barriers into minor divisions, the different sources from which its population has been drawn, the newness in the state of a large proportion of its citizenship without tradi-

tional attachment to the state as a whole, are elements of difficulty in the purpose to create here a great commonwealth and a great people free from local prejudices and misunderstandings, partisans of all that makes for strong and generous leadership in the world.

Very respectfully,

DAVID P. BARROWS,

Dean of the Faculties.

SUMMARY OF DEPARTMENTAL REPORTS¹

Agriculture.—The work of the Department of Agriculture of the University of California for the year ending June 30, 1913, is given in the Report of the Director of the Agricultural Experiment Station and in Bulletins 229-239, and Circulars 80-103, inclusive, prepared by various members of the staff. Approximately 405,000 bulletins and circulars have been distributed.

There have been added to the Department, by appointment, during the year, sixteen Professors and Assistant Professors, while several additions have been made by promotion.

A number of new buildings have been completed, including Agriculture Hall at Berkeley, the Citrus Laboratory at Riverside, and three important buildings at the University Farm.

Co-operation has been continued or entered into with several bureaus of the United States Department of Agriculture and with other agencies. Co-operation with the United States Department of Agriculture includes both irrigation and drainage investigations, seed-testing, soil surveys, the establishment of agricultural advisers, and fertilizer and other experiments on the delta lands of the San Joaquin Valley.

Infantile paralysis was the subject of co-operative investigation with the State Board of Health. Co-operation with certified milk commissions, cow-testing associations, the educational butter-scoring contest, and the official testing of pure bred cows constitute a part of the public service which the Department seeks to render. Farmers' institutes and educational trains have been conducted as usual, while the personal advice rendered to farmers of the State is evidenced by the fact that during six months the members of the staff have written 27,718 letters.

In connection with the Fertilizer Control Act, 650 fertilizers have been analyzed. Under the Insecticide Control the number of brands registered and labels inspected was 9,646, while the number of analyses made was 553. Approximately 52,300 hogs were immunized with serum or virus, or both, prepared by the Veterinary Division of the Department.

¹ The Department of Agriculture has recently published a separate report for the period July 1, 1912, to June 30, 1913, under title of "Report of the College of Agriculture and the Agricultural Experiment Station of the University of California from July 1, 1912, to June 30, 1913."

The Department of Physiology submitted no report.

A complete reorganization of the work of investigation which has been conducted at the Southern Pathological Laboratory and the Citrus Experiment Station is under way.

The work under the Adams Fund has been somewhat modified so as to apply to a few projects which shall be fundamental in character from an investigational viewpoint and at the same time shall be of prime economic importance in California, including tuberculosis in domestic animals, plant diseases, and the chemical and biological studies with reference to soil fertility.

During the year the Academic Council has increased the requirements for the junior certificate in the College of Agriculture by requiring 130 units instead of 124 units. The effect of this and other legislation will be to require more fundamental training in the sciences and to bring each student to the junior year with a known and comparatively uniform training. Brief and fragmentary courses have been eliminated. In general, lecture courses are to occupy three or more hours each week and laboratory courses are to consist of six or more hours. The principle is recognized that three hours of effort on the part of a student are required for a unit of credit. Hereafter students will be required, at the close of the sophomore year, to take a summer course of eight weeks in connection with the proposed major subject. During the year the instruction in the University Farm School at Davis has been made to approach more nearly that of collegiate character and rather less like the high school, due to the fact that the young men in attendance are of college rather than of high school age and maturity, though many of them lack the educational preparation for admittance to academic standing in the University.

Correspondence instruction in agriculture has been inaugurated and twenty-nine courses have been announced. It is impossible to refer in detail to the work of the Department of Agriculture, but the general character of its activities may be indicated by an enumeration of the divisions which are recognized within the Department as follows: Agricultural Chemistry, Agricultural Education, Agricultural Extension, Agronomy, Animal Husbandry, Genetics, Citriculture, Dairy Industry, Entomology, Landscape Gardening and Floriculture, Horticulture, Nutrition, Plant Pathology, Poultry Husbandry, Pomology, Rural Institutions, Farm Mechanics, Soil Chemistry and Bacteriology, Soil Technology, Veterinary Science, and Viticulture.

Anatomy.—The addition to the building constructed early in the year provides comfortable accommodations for the laboratory work in histology and the work of dissecting, but the library and study room is entirely inadequate to meet the demand made upon it and more room is needed for purposes of demonstration.

The students' seminar in the history of medicine, which is carried on independent of the instructors and without university credit, has been successfully continued.

It seems essential that the department collect embryological material in order to solve certain important problems in the field of human anatomy. During the year an appeal has been made to all graduates of the medical department of the University to send to the department of anatomy whatever material of this nature may come to them in the course of their practice; there has been a satisfactory response to this request. It is the aim of the department to obtain a valuable collection.

Anthropology.—Class instruction has been given to an increased number of students during the past year, the number of enrollments for the two semesters being in excess of four hundred. The larger enrollment seems to result from a closer organization of the section work and the growing realization of the place of anthropological knowledge in a general education.

The work of the museum has been done along the lines laid out during the preceding year but with a greater development of lecture and school activity and with a beginning of an extension of the work to Berkeley. The attendance of visitors at the San Francisco building was 26,873 as compared with 28,241 for 1911-12. In the museum auditorium 134 lectures, each followed by a demonstration, were given to 8,900 pupils coming on 179 visits from 70 different schools. So far as opportunity has allowed, the same work has been extended to the Berkeley division of the museum during the past year. From eight public schools of Oakland and Berkeley 1,410 pupils paid 28 visits to the Berkeley museum for 25 lectures and demonstrations. In both divisions of the museum combined, therefore, more than 10,000 pupils were reached by this system. The regular Sunday and holiday lectures at the Affiliated Colleges have totaled 69 and have been listened to by a total of 5596 auditors. Similar lecture series on Sunday afternoons at Berkeley have also proved successful. The total number of lectures given under the department's auspices and in connection with the museum display was 261. These 261 lectures were attended by 17,242 people. Practically all of the lectures given referred more or less directly to specimens on exhibition. It seems wisest to look upon this activity of the museum as a necessary interpretation without which the collections cannot realize to the public at large their full intrinsic educational value. A similar policy should guide exhibition. It is not so much the specimens themselves as what they stand for, that it is the ultimate business and opportunity of the museum to show to the world.

Architecture.—During the past year an addition to the architecture building has been completed and all the rooms are fully occupied. The exhibition hall has proved a decided success. All exhibitions have been

very largely attended. It is also found to be a great advantage to have the lectures in the architectural curriculum under the school's own roof.

The architectural library is added to from time to time as the amount in the budget permits, but only the most immediately needed books are obtainable on account of the smallness of the funds available.

The Regents have, within the last year, recognized the school of architecture, as distinguished from the department, the school representing the strictly professional work of the senior year and two graduate years. It is understood that the completion of the school curriculum will be recompensed by a professional degree in architecture, the exact wording of which remains to be determined.

Astronomy.²—The large lecture course in general astronomy (Astronomy 1) has been made a three-hour course, an additional section hour having been added. There has been, however, no decrease in enrollment. The course in the history of astronomy has been moved from the lower into the upper division.

Six students have completed the requirements for the degree of doctor of philosophy during the academic year under the joint instruction of the Lick and the Berkeley astronomical departments and of the departments of physics and mathematics. These students had no difficulty in obtaining positions immediately—three were appointed to instructorships, two received assistantships in the observatory of the Argentine Republic and one was awarded the Martin Kellogg Fellowship at the Lick Observatory. In spite of the fact that every graduate of the year has secured a desirable position it has not been possible to supply the demand made on the University of California for young astronomers.

Botany.³—The number of students enrolled in this department is rapidly increasing, due in part to certain requirements of the college of agriculture and in part to the growing demand for trained botanists. For the year just closed the laboratory facilities were taxed to the utmost, necessitating the use of an attic which is not only unsuitable for purposes of instruction but is actually unsafe because of the absence of proper exits for use in case of fire. It seems evident that the laboratory space, equipment, and teaching force of the department should be very materially increased.

The botany building was recognized to be too small when built and although the herbarium has been removed to more commodious and safer quarters, the room thus rendered available is at present more than filled. It seems necessary in the immediate future either to have an entirely new

² For Director Campbell's report on the Lick Observatory see p. 76.

³ See list of gifts to the herbarium, botanical museum, and botanical garden, p. 183.

building, or if that be impossible to make at once such additions to the present botany building as to accommodate the large classes in laboratory and lecture.

The herbarium has increased in size and usefulness, ministering to the botanical needs of the agricultural experiment station and of numerous correspondents throughout the state. The plants here preserved form an important reference collection which is in constant use by members of the department, by advanced students, and by specialists from and in all parts of the world. The number of permanently mounted specimens now totals 170,500, of which 7,025 were added during the year ending June 30, 1913.

Chemistry.—The recent additions to the staff of the department of chemistry have made it possible not only to increase the efficiency of the undergraduate courses, partly by relieving several of the professors and instructors of an excessive burden of teaching duties, and partly by dividing the larger courses into small sections, but also to establish graduate and research work upon a more adequate basis. While the instruction in the elementary courses, on account of their size and importance, demands much attention, the advancement of chemistry, through scientific investigation, and through the training of competent graduate students in research, constitutes a no less important part of the departmental duties. There is a large and growing demand for men who have had a thorough undergraduate course in chemistry, but even more striking is the rapid increase in the demand for those who have acquired in graduate work that familiarity with the theory and practice of chemistry which enables them to solve the new problems of growing industries. Such men must be available in California if the natural resources of the state are to be adequately developed.

The new chemical annex, which was erected last summer, was, within one month of its completion, fully equipped for research in the various lines of inorganic and physical chemistry. Research in organic chemistry, under the direction of Professor Biddle, has been carried on, as hitherto, in the main building. The number of men actively engaged in the various fields of investigation and the success which they have achieved have been extremely gratifying.

For the benefit of graduate students and seniors four seminar courses have been offered during the past year: Organic chemistry, Professor Biddle; phase rule, Professor Bray; thermodynamics, Professor Tolman; relativity, Professor Lewis. These seminars, together with a bi-weekly colloquium for the review of current chemical literature, and a weekly conference for a discussion of the investigations in progress within the department, have done much to stimulate an interest in the higher problems of chemistry.

In the large elementary course the lectures, formerly given by Professor Morgan, have been ably conducted during the past year by Professor Morse. Permanent provision for this work has now been made by the appointment of Dr. Joel H. Hildebrand, of the University of Pennsylvania, as Assistant Professor of Chemistry. The laboratory work in this course has, for a number of years, been seriously handicapped by the overcrowded condition of the laboratory. In order to prevent the necessity of actually turning students away from this course, the room formerly devoted to physical chemistry has been converted into a part of the freshman laboratory. The department of chemistry cannot long continue to maintain the highest standards of efficiency in its present quarters.

Civil Engineering.⁴—In the departments of civil engineering division, namely, railroads, structures, and sanitation, building alterations have been accompanied by increased office room in the civil engineering building. The supervision of each of the departments is now properly centered. Two other branches of work may properly be called branches of civil engineering—surveying and irrigation. The growing need for expansion in surveying and drafting equipment leads Professor Derleth to recommend that the anatomy building be turned over to the use of the department of civil engineering, should the anatomy department vacate, in accordance with plans outlined for the medical school. The surveying and drafting group could be accommodated in that building. The testing interests of the department of civil engineering need additional attention. In the words of Professor Derleth: “Our present testing laboratory, though tripled in size two years ago, is already crowded, due to great expansion in the number of students and in different enterprises created or developed. We seriously need to have our work expand and flow, so to speak, into the present building occupied by anatomy and printing.”

The relationship between the department of civil engineering and irrigation has been close, due to the evident connection between the two branches of work. Officers of the irrigation department have at all times recognized this connection and it is the aim of the civil engineering department to bind to it more closely the irrigation interests. The fact that the irrigation department is placed in Budd Hall naturally makes the connection less strong than it would be if the irrigation work were placed in a building close by that of civil engineering. Professor Derleth's plans comprehend the closer cohesion of the two departments by the plan of giving joint work in irrigation and civil engineering in the present anatomy building.

⁴ See list of gifts to the Department of Civil Engineering, p. 190.

Drawing.—The assignment of a portion of the upper floor of California Hall gave some much needed room for the art division of the drawing department, and the addition to the staff of an assistant on one-half time proved to be beneficial in many ways, but all of his time is necessary to enable us to properly redistribute and add new courses required for the preparation of teachers of freehand drawing. The University should furnish a larger proportion of such teachers to the state.

The scientific division of the department is at times cramped for room; a rearrangement of one room and some new tables may tide us over the coming year.

Economics.—The past year has seen a fundamental reorganization of the *content* of the courses designed for the students of the college of commerce. The aim of the change has been to meet more effectively the ever growing demand for more “practical” or technical training in these branches.

Experience seems to show that omnibus courses dealing with “business administration,” “scientific management,” “business forms and documents,” and the like, are not so effective as is the study of the so-designated phases or characteristics of each line of business in connection with the courses devoted to the particular businesses in question. Thus, for example, railroad organization and administration, as well as the railroad documents and forms, will hereafter be treated as a part of the appropriate courses on railroads. In a similar manner bank drafts and the accompanying documents will be treated under banking and foreign exchange; methods of wage payments including premium systems and the kindred features of so-called “scientific management” as applied to labor will be treated in connection with the several courses on labor; and so on throughout other subjects.

The courses in business organization and administration have been continued but they will hereafter be less general and more intensive and will deal with such subjects as factory organization and the organization of mercantile enterprises of a miscellaneous character.

Education.—The proportion of secondary teachers in the state who have had the required graduate and professional work is steadily increasing. A growing number of schools regularly apply to the University for teachers to fill vacancies, in both the upper elementary grades and the high school. The fact that every candidate for the University endorsement must have the recommendation of some one department other than education showing fitness to give instruction in at least one high school subject constitutes such recommending departments a part of the University’s provision for training teachers. The recognition of this relation led to the establishment near the close of the academic year

of the school of education, to include the department of education and such other departments as regularly offered opportunities for the required teaching experience. "The greatest want of the department at present is some provision for a commodious secondary school in which the teaching experience which the state board requires may be had under our control. At present we are under obligation to the school authorities in the nearby cities for their co-operation and it is not always possible to find in these voluntary offers the vacancies coveted by the cadets" (report of Professor Boone.)

English.—Assistant Professor Kurtz has returned from leave of absence. Professor Gayley reports: "The instructors in the department are doing industrious and excellent work but there are not enough of them to take care properly of the large freshman and sophomore classes. Much attention is given and with commendable success to the training of students in speaking in all the recitation classes. There is imperative need of a lecture hall large enough to accommodate the whole freshman class. We should have a hall which would accommodate 1000."

Geography.—The work of the department is progressing satisfactorily and the number of students has increased in a gratifying ratio compared to the growth of the University. The meteorological observations are growing in value with the continuous records now obtained from the barograph and thermograph recently installed. The instruments are still maintained at the old site by the Astronomical Observatory. As they must be moved whenever new buildings are started on that site it is very desirable that a permanent location for the meteorological station be considered. The bulletins already issued have called attention to the rich opportunity in California for research work in geography, an opportunity much commented upon by the party of "International Geographers" who visited the state last year.

Geology and Mineralogy.—The second year of the occupancy of Bacon Hall has been largely one of adjustment of the laboratory arrangements to the new quarters. The department is now well settled in these and its regular work is proceeding smoothly. Several of the large rooms of the building are still unfinished. The large lecture room on the second floor is becoming too small for the class in general geology.

The department library, gotten together since the move was made into Bacon Hall, has proved of great aid in facilitating the work of the department. The Bulletin of the Department of Geology is now in its seventh volume and the total number of bulletins issued is 131, a considerable number of these being from the department of palaeontology. In the seismological station the heavy motion Marvin seismograph has been finally installed. The department issues every six months a bulletin of the seismographic stations, comprising the records of shocks observed

at the Berkeley station and at the Lick Observatory. The collections in the museum of geology and mineralogy increase slowly, owing to the lack of space in which to display exhibits. The work of advanced instruction in geology and the usefulness of the department to the state might be greatly increased if a small fund were available to defray the expenses of field work.

German.—The department of German has shared in the growth of the University, the maximum enrollment in its classes being, last year, 1,233, as against 1009 the year before and 860 in 1910-11. There are two particularly gratifying features about this growth: first, the continued preponderance of second-year enrollments (454) over those in the first-year (beginners') courses, which shows that an increasing majority of students get their elementary German training in the high schools; and second, the rapid development of the advanced work as shown by the enrollment in upper-division and graduate courses (514, including 84 graduate enrollments, as against 396 and 60, respectively, for the year before).

Greek Language and Literature.—A change in the requirements of the English department recently approved by the faculty will make it somewhat easier for students to go on with Greek in the University. The six hours of English formerly required for the Junior Certificate of all students who entered college with the minimum amount of English will henceforth not be required of classical students. A change has been made in the prescribed course of study in Greek in deference to the opinion of important friends of Greek studies by which students will be introduced to the subject of Greek tragedy earlier than before. A course in the *Medea* of Euripides will be given to freshmen, this comparatively easy tragedy taking the place of Homer, which has filled the first half of the freshman year. Associate Professor Allen has continued his important work with beginners, even more successfully than before.

History.—Professor Bolton is leading the work of the history department in the field of Spanish American history and during the next year work will be completed under his direction which will add greatly to the store of knowledge in that subject. Associate Professor Teggart is training advanced students in Pacific Coast History and in historical theory. His recent publication of Father Font's *Diary* is a work of unique value to students of Pacific Coast History. In the other branches of the department—in ancient history, mediaeval history, American history, and English history, handled by Assistant Professor Scholz, Assistant Professor Paetow, Assistant Professor McCormac, and Assistant Professor Morris, not only is the actual work of instruction being given with excellent results, but creative work of high character is being done. Professor Stephens urges a detailed study of Spanish history and Spanish institutions in the University with a view of filling the field more ade-

quately in the future. The field of Renaissance history, due to the death of Professor Bacon, is not being covered at the present time. Professor Stephens also emphasizes the need of increased instruction in modern European history. Assistant Professor Scholz is away from Berkeley on a year's leave of absence. He will be teaching at Harvard University. Mr. Van Nostrand is taking charge of Professor Scholz's work during the latter's absence. The course in general history for freshmen and sophomores has been given during the past years with pronounced success. Repeated enquiries from other institutions show the general interest taken in it. Instead of the fortnightly sections of quizzes and reviews the lecture is now supplemented by weekly rather than fortnightly sections, which necessitates an increase in the number of teaching fellows.

As the history department grows in vigor and efficiency the poorness of the library equipment becomes more manifest. The Bancroft library only fills a small part of the department's work and has no regular income to purchase new books or manuscripts. Outside the Bancroft library and especially in the field of mediaeval and modern European history the library is poorly equipped. A working collection of the primary authorities in European and general American history is needed. The history department desires to go on record as sincerely grateful to Regent J. K. Moffitt for his generous gift of the great sets of the *Acta Sanctorum* and of the *Mansi Concilia*. The work is absolutely indispensable for the study of mediaeval history. The Native Sons of the Golden West have renewed their maintenance of fellowships in Pacific Coast History. The success of this foundation cannot be too greatly magnified.

Hygiene.⁵—The number of students in the department is greatly increased since last year, due to the increase in the number of university students at large and the increased demand by the public for trained officials in matters relating to health conservation and the prevention of disease. The course in epidemiology has been re-organized and is now given as a lower division course prerequisite to all upper division courses in hygiene. The student is shown that personal hygiene must be aided by public hygiene, if the spread of disease is to be prevented. A purpose of the course is to outline communicable diseases prevailing in California. The course in sanitary surveys is being given in the upper division and is amplified to give the student practical experience in the various fields of sanitary instruction. He must present reports on the inspection of a dwelling, a school house, a meat shop, a dairy, a provision store, etc. Courses in public health administration, first aid, child hygiene, and home care of the sick are being given with success and in as practical a manner as possible. Courses in the department of hygiene which

⁵ See the report on the Student Infirmary, p. 56.

are most often called for and which as yet it has not the means to provide are courses in housing hygiene, one in institutional hygiene, one in occupational hygiene, and one in vital statistics. It is to be deplored, moreover, that there is no laboratory practice in the work in child hygiene and a course pre-eminently successful in the Summer Session, that of teaching hygiene in the public schools, deserves a place in the enlarged hygiene curriculum. Original investigation has been made by Dr. John N. Force along two lines. The smallpox epidemic occurring in Berkeley in January, 1913, resulted in the vaccination of 1230 persons at the Infirmary. As all but 148 of these were secondary vaccinations an excellent opportunity was given for the study of the effects of various strains of vaccine on the previously vaccinated subject. The results were published. Observations were also made on 261 persons vaccinated against typhoid fever with a sensitized vaccine prepared under the direction of Dr. Gay of the department of pathology. The hygiene exhibit has been renovated but a larger place of exhibition is imperative if the work is to expand properly. Graduate investigations were made along the lines of diphtheria carriers and so-called ozone machines. Dr. Sawyer of the State Hygienic Laboratory has achieved a noteworthy piece of investigation on the methods of transmission of poliomyelitis. At the State Hygienic Laboratory the diagnostic examinations of animals' brains to determine whether or not rabies was present increased in number during the past year. Out of 333 examinations made 277 gave positive results. One year ago the State Hygienic Laboratory began the manufacture and administration of Pasteur virus for the prevention of rabies. Since that time 232 treatments have been given.

Irrigation.—The total enrollment in the department was 246. Of this number 123 students were from the college of civil engineering and 95 from the college of agriculture. The department has continued its instruction at the University Farm. The irrigation department has moved its quarters from Budd Hall to the attic floor of the new Agriculture Hall. The majority of irrigation courses, however, must be held in other buildings owing to the over-crowded condition of Agriculture Hall. The relationship between the irrigation department and the civil engineering department is very intimate and it is essential to obtain uniformity in policies, to prevent duplication of courses, and to properly co-ordinate the work. The necessity of this is apparent when it is known that from one-third to one-half of the students in the college of civil engineering have in the past taken the irrigation course. The department also offers a number of courses especially planned for the students from the college of agriculture. It is presenting some definitely outlined courses in each division of agriculture and has recommended two combinations of courses known as the liberal course in irrigation and the technical course in irrigation. The demand for graduates who have received instruction in

irrigation has been gratifying. The demand from outside states for our graduates is an indication that the irrigation department occupies a new position in American colleges. Professor Etcheverry calls attention to the fact that the expansion of the agriculture department may make it necessary for the irrigation department to move its quarters. The department emphasizes the need of a joint laboratory of sanitary engineering and irrigation.

Jurisprudence.—At a meeting of the Association of American Law Schools held at Milwaukee in August, 1912, admission to that body was extended to the University of California department of jurisprudence. Assistant Professor Matthew C. Lynch was our delegate at that meeting. At the November meeting of the Board of Regents it was ordained that the department of jurisprudence should be erected into the school of jurisprudence and in April Professor William Carey Jones was appointed by the Regents director of the school.

On November 1, 1912, the first number of the California Law Review was published. The California Law Review is issued bi-monthly by the faculty and students of the school under the chief editorship of Professor Orrin Kip McMurray. It is the aim of the periodical to make a special feature of subjects peculiar to the law of the Pacific Coast. Each number contains several articles of interest to the legal profession, together with comments on recently decided cases and discussion of contemporary legislation. The Review has taken a position that ranks high with the best legal periodicals of the country. The pre-legal classes are showing extraordinary growth indicating that in a few years the professional classes will tax the capacity of Boalt Hall. The morale of the student body continues to be all that could be desired of any group of young men. Professor Jones states: "The one pressing vital need of the school is a larger library appropriation. The 10,000 volumes now in Boalt Hall are all of the first importance; but a working library of Anglo-American law books alone must include some 25,000 volumes."

Latin.—In the Latin department during the past year Dr. Deutsch has been absent in Europe, and his work has been taken by Dr. A. P. McKinlay of the Portland (Oregon) High School. "The registration of students in the lower division courses increased from 498 to 576, and of graduates from 34 to 40; but in the upper division there was a reduction from 244 to 211. The net increase in the department was 51. There are many indications that the tendency away from the study of Latin has finally changed."

Mathematics.—Dr. H. N. Wright has been added to the staff as instructor and gives the extension work in mathematics. Demands for instruction by correspondence are unusually heavy. It would seem to indicate that further addition to the staff next year might be necessary. Despite the large enrollment instruction has been

given with efficiency, the assistance of student readers being valuable in large lower division classes. While the latter is a most useful supplement to the work of instruction it cannot take the place of the personal relation between teacher and student which can only be maintained in classes of 20 to 25 at the most. During the past year enrollment in the lower division classes averaged 37 in the first half year and 31 in the second half year. There is no doubt that the average enrollment for the coming year will be considerable in advance of the figures given for the past year. The department emphasizes the need of an increase in its teaching staff and calls attention to the necessity of more classrooms being placed at its disposal. This year for the first time a general examination in mathematics of all candidates for the bachelor's degree where the major group was mathematics has been required. The plan has proved its value in forcing the candidates to co-ordinate their knowledge, to pay more attention to the foundation principles, and in general to get a broader and more comprehensive view of the field of mathematics.

Mechanical and Electrical Engineering.—The interest taken in the engineering work of the department by engineering associations on the Pacific Coast has proved of the greatest assistance. In particular is thanks due to the Pacific Coast Gas Association, whose financial contribution has made possible the new course in gas engineering. Other new courses offered by the department include electrical oscillations and a new course in engineering mechanics. Experiments made by the John W. Mackay Junior Fellows had to do with heat storage. Experiments in the field in reference to the interference of electric power and telephone and telegraph lines were productive of important conclusions. Practical engineering results were completed in relation to the efficiency, regulation and operation of the longest and highest voltage electric power transmission systems.

The laboratory has been enriched with new and much needed equipment in the field of hydraulic machinery. An annual contribution of \$2,700 by the Pacific Coast Gas Association for the support of the new courses mentioned above has resulted in the addition of valuable equipment. So many senior students have been registered in electrical engineering and the space and equipment has been so limited that single laboratory sessions have been held from one to seven p.m. This schedule has been substituted for the regular schedule of two periods per week each from one to four p.m. The entering freshman class in the college of mechanics is forty per cent larger than ever before in the history of the University. The electrical engineering laboratories are proving inadequate for the increased enrollment. The Associated Electrical and Mechanical Engineers have been of great service to the department during

the past year and the spirit and influence of this organization has been of great value in promoting interest in engineering matters and co-operation among the students.

Military Science and Tactics.—No changes were made during the year in the courses of instruction or in the organization of the university cadets. The organization was that of an infantry regiment—staff, band, and three battalions of five companies each, the assistants performing the duties of battalion commanders. Appointments of students as field officers of the regiment were made at the close of the year's work, as heretofore.

The assistants, Messrs. G. E. Dickie, B. S. Clendenin and A. Eaton, performed their duties in a very satisfactory manner. The cadet officers, with very few exceptions, were efficient and enthusiastic. The spirit of the whole cadet body was excellent and most gratifying to the commandant. Bulletin No. 20, War Department, June 12, 1913, announces that the work of the military department of the University of California for the past year has been especially commended.

For the year, the total enrollment of students in the department was 1465; the maximum strength of the regiment was 1342, the minimum 1177.

Major E. M. Lewis, 19th Infantry, was relieved as professor of military science and tactics, September 2, 1912, the period of his detail, as extended, having expired. He left the department in excellent condition. Major J. T. Nance, U. S. Army, retired, succeeded Major Lewis September 3, 1913.

Mining.⁶—A number of mining laboratories are in working order at the present time. The equipment there contained is worth about \$100,000 but is still far from complete along the lines originally planned when the building was designed. Professor Christy estimates that the expenditure of from \$200,000 to \$250,000 will be needed to complete the equipment, but that it is not necessary nor desirable that this sum should be available at once, calling attention to the fact that a sum of from \$20,000 to \$30,000 a year for the next ten years would keep the plant in efficient condition. The needs of the department are new equipment for the mining and metallurgical laboratories, summer school equipment in mine surveying, and museum cases. The department considers these immediate and imperative needs and states that \$30,000 would be sufficient to satisfy the deficiencies. The decrease of attendance has been attended by a number of advantages. It is now possible to give more attention individually to the students than formerly and the quality of the preparation of mining students now entering the University seems to be better as the numbers are smaller. An admirable spirit exists among the students enrolled in the college of mining. The attendance at our mining school

⁶ See list of gifts to the Department of Mining on p. 188.

seems to be in an upward direction, the enrollment of new students in the college having increased 76 per cent, the largest increase of any college of the University.

Music.—Reorganization under a new professor of music has led to the appointment of an assistant in music and a lecturer in voice culture. This allows the department to announce seventeen courses for 1913-14, more than thirty hours of instruction a week, the enrollment of 375 in lectures and classes indicating an increase more than 100 per cent in a year. The enrollment in the chorus and orchestra under the choragus is 235 in addition to this.

The department enjoys equal standing with others in matters of major courses, honors and recommendations for the teacher's certificate. The subject is considered under three heads: (1) as a language, appealing principally to the student in general; (2) as an art; and (3) as a science, the backbone of a complete course being a series of four progressive year-courses in "composition" beginning with harmony and ending with formal composition. Except in extent, it is considered that all students should follow the same path. Music in the Summer Session (enrolling about 600) has been undertaken as regular work of the department and will be made to harmonize and supplement the activities of the academic sessions.

Ten university recitals free to students (others paying a nominal fee) have been given under the direction of the professor of music, at which there has been an average attendance of 500. The music is chosen, without concession to preconceived ideas of popular demand, almost entirely from the work of the great masters, arranged somewhat chronologically and performed by the best available singers and instrumentalists. Under the direction of the staff a competent student has instituted a column of music notes and criticism in one of the student publications.

Through the division of University Extension are offered six correspondence courses, sundry lectures, and University recitals. The department sees an unlimited field in this direction and hopes some day to establish not only lecture and concert routes throughout the state, but to maintain, for this and no other purpose, exceptional artists and perhaps a state orchestra which could, in this way, be made to meet expenses. The need of good music, not solely as a relaxation, but as a fundamental and imperative principle of government, is felt in every town in the land, but has no other name than "labor unrest" and "cost of living." The professor of music continues to urge a state music school with close affiliation throughout the public school system and musical profession.

The temporary music building (or cottage) is already taxed beyond its capacity. A more appropriate housing upon the campus is justified and eventually a place in the permanent building plan. The library has

acquired a complete set each of Bach, Vittoria, Beethoven and Brahms and is to be augmented by a complete Palestrina, the gift of an eastern musician.

Oriental Languages.—Recent events in the Far East which have brought China and Japan into prominent notice have opened up increased and extensive avenues for commercial and other pursuits. This has led to the increased importance of a thorough knowledge of the language and literature as well as government of these Oriental lands. The Pacific Coast affords the greatest facilities in this direction. The numbers of students enrolled in the department are small compared with present day requirements and the possibilities under more favorable conditions. The department has existed seventeen years. There are now 250 students taking different courses each term. The present staff consists of two teachers and the professor of Oriental languages, while the number of courses actually given in any one term amounts to sixteen. Professor Fryer reports that the falling off in the language classes last year resulted from the decision of the academic council specifying that Oriental languages would no longer be allowed as prescribed work in modern languages. The work in Oriental languages is now elective only.

Palaeontology.—Twenty tons of palaeontological material, including probably some 300,000 specimens, were obtained during the year from the asphalt beds of the Rancho La Brea, near Los Angeles, through the work of an excavating party headed by Reginald C. Stoner. A large amount that is new is included. Practically complete material has been obtained for a number of forms, such as the camel, lion, and antelope, of which previously only small parts of the skeleton had been known. This work at Rancho La Brea was made possible by the kindness of Madam Ida Hancock Ross and other friends of the University. It has resulted in assembling at the University one of the best collections of Pleistocene vertebrates known.

Other interesting field work during the year included the collecting of several hundred fragmentary specimens representing the sabre-tooth tiger, horse, camel, ground sloth, and many birds, all found in a thin layer of sand in the marine Pleistocene beds of San Pedro (these are valuable as throwing light on the relative age of the marine formations); work at Hawver Cave; discovery of a large area of Tertiary fossil beds in middle Nevada containing some of the most nearly complete material thus far found in that state, including a portion of the skull and considerable part of the limbs of a new type of three-toed horse; exploration of fossil beds in the Mojave Desert which promise rich returns; discovery of Pleistocene lake beds thirty miles in diameter, named the Manix Beds by the finder, J. P. Buwalda; the finding of fragmentary mammalian remains in a marine formation at the southern end of the San Joaquin Valley which serve to correlate the great series of beds in the Mojave

Desert region with those of the marine sequence of the San Joaquin Valley and the Coast Range region; exploration by eleven different men in the marine Tertiary of the Coast Range, including work by Roy H. Dickerson on the Eocene which has doubled the known fauna of the Pacific Coast Eocene, by Bruce Clark on the Miocene, by W. Kew on the Tertiary of the Imperial Valley region, and including also work by Messrs. English, Packard, and Buwalda which has added much to our knowledge of the Miocene fauna; and an examination of the Cretaceous fauna from the eastern side of the Great Valley.

Some forty different papers have been published or written by various members of the large and active group of palaeontological investigators at work in the University of California.

The enrollment in the undergraduate courses has assumed large proportions. A valuable new feature is the demonstration courses, which gives the students opportunity to see at least a few of the most interesting occurrences illustrating the history of life in this region. The rapid expansion of the oil industry in California has much increased appreciation of the value and importance of the instruction in invertebrate palaeontology.

A great need of the department is adequate museum facilities, so that representative portions of the large and extremely varied collections which the department has now assembled may be made available for observation and use.

At the meetings of the two graduate seminars conducted by the department the results of original work are presented by members of the seminar. The greater number of these papers are published. Very considerable additions to the world's knowledge of the history of life are resulting from the work in palaeontology at the University of California.

Pathology.—The demand for systematic laboratory instruction in the principles of bacteriology continues unabated. During the last four years the increase in the number of students has been practically one hundred per cent annually. The course in general bacteriology especially has met with an increased attendance. Two separate courses in general bacteriology are offered for the ensuing year, one for agricultural students and one for students of other colleges. Nearly the entire second semester of the second year of medical instruction is taken up with the combined concentration courses in bacteriology, protozoology, infection and immunity, and morbid anatomy. An additional elective course in experimental pathology is offered for the first time this year. Work is being given by the department for dental students. Elective courses are offered in the fourth year to medical students. Each member of the department offers at least one advanced course in his particular field. Last year the department arranged for instruction in the general aspects

of preventive medicine, hygiene and public health, which instruction all medical students are required to have. An addition has been made to the pathology building due to the large increase in undergraduate students and the increased needs of the larger medical classes. Associate Professor Fitzgerald has returned to Toronto to engage in public health work. Dr. Karl F. Meyer, late of the University of Pennsylvania, has been secured to carry on and amplify the work of Dr. Fitzgerald. He is a recognized authority on tropical diseases. In the field of research twelve articles by members of the department have been published or are in press. Perhaps the most important research activity has been the work by Drs. Gay and Claypole on a systematic determination by new experimental methods of the best means of preparing a vaccine for protection against typhoid fever. Professor Gay reports: "We have, so far, succeeded in producing a vaccine at least as highly protective as the one commonly used in the army and navy, and having the additional advantage of producing no severe reaction in the individuals that are vaccinated."

Philosophy.—Prof. Stratton reports that the increase in the number of students enrolled in the department continues to be a source of gratification and embarrassment. The total enrollment in all courses in the department for the two terms of the year 1911-12 was 1,457. For the year 1912-13 the total enrollment increased to 1,744, an increase of nearly twenty per cent over that of the preceding year—a growth considerably larger, relatively, than that which has taken place in the student body of the University as a whole. While the enrollment in courses in the lower division has increased greatly, there has been even a larger proportionate increase in the enrollment in upper division courses and in graduate courses; and as regards the topics represented, the increase has been distributed over all branches of the work. There has, however, been a signal and especial increase in the enrollment of the classes in logic and in ethics. During the past year the department has, for the first time, offered in a systematic way a number of courses in aesthetics, a subject which properly belongs to this department. The unusually large enrollment in these courses proves that they are meeting a genuine need. The enrollment in aesthetics has, indeed, already pressed, to the breaking point, upon the present equipment.

There are urgent needs in the department both for men and for more favorable physical means. There is urgent need that the department heed the public demand, particularly in San Francisco, as well as in the community immediately connected with it, for help with regard to the defective child in the school. A specialist or specialists adequately trained in psychology, in medicine and in education is needed for this work.

The building has become far too small to meet its work. A great many of the most important classes have been compelled to leave it entirely.

Physical Culture.—The vacancy occasioned by the resignation of V. V. Ligda as assistant professor of physical culture has been filled by the appointment of Frank L. Kleeberger. Mary S. Shafter has been put in charge of outdoor work for women. During the past year classes have been organized to meet the demands of the upper division. That they have proved popular is evidenced by the large attendance in the wrestling course and the courses in advanced gymnastics. New courses are added this year—Mrs. Magee offers one in corrective work, Mr. Scott in outdoor work, and a course in the physiology of exercise by Professor Kleeberger. The outdoor work is handicapped by the fact that the department is limited in the use of space. More basketball and handball courts are desired by the department.

Physics.—During the year 1912-13 the laboratories for the lower division have been removed from East Hall to South Hall, and the rearrangements attendant upon the concentration of the department's work under one roof have been proceeding. The definite assignments within the building give over the basement and the top floor to the several branches of advanced work, while the two other floors provide rooms for elementary classes and for some general conveniences like the library and the central office of the department. An essential feature of this rearrangement has been the erection of the annex for a workshop and storeroom; this is now completed and occupied. A real gain in morale and in economy as regards teaching and management is visible already as a consequence of the improved conditions.

The teaching staff has been strengthened by the addition of one instructor. This enables the department to take part in the general adjustment of the University to the needs of students matriculated in January; it is rendered possible to begin the course for freshmen in each half-year. A further specific advantage of this appointment is that the department can now better meet the legitimate claims of the Summer Session. Its experience establishes as a fact that a summer's teaching should not in general be followed by a year of normal burdens; so that a department ought to be manned with enough of surplus force to afford each instructor in turn who may have volunteered for the Summer Session the proper relief in the ensuing year.

Political Science.—The so-called League of the Republic lectures—Political Science 114—are delivered on certain problems in the field of political life. These lectures are attended by increasingly large audiences of students and the general public. The total enrollment of students in the department was 479 for the first semester and 456 for the second. An average of 35 graduate students took work this year compared with an average of 15 in 1911-12. The report of the department calls attention to insufficient assistance with regard to Political Science 1A-1B, the

large lower division lecture course. The department has had but one assistant capable of giving section work, which has necessitated large sections and prevented careful consideration of the papers of the students.

The members of the department are more and more called upon by civic bodies for information and lectures concerning matters within the scope of the subject of political science. While it may perhaps be regarded that such demands on the instructional force interfere with the use of their academic leisure, it is, on the other hand, fortunate that the department aids in bringing the University closer to the people. The department is impressed with the necessity of adding to its present course of instruction work in administrative law and comparative legislation. With such an addition it would be covering the field of political science in a complete manner.

Romanic Languages.—It has seemed advisable to make all elementary courses consist of five periods a week. This is an important and far-reaching change, as it entails a readjustment of the incoming students' programme of studies, but the reorganization of elementary work has become necessary because the department has been afflicted with two burdens impossible to carry: one, that of repeaters, and the other of "snap-hunters" who needed only three hours of something to make up a required number of units. The department will send out a printed circular to the teachers of modern languages in the schools, that they may understand its policy and co-operate with it.

The library has grown in a very satisfactory way; the Spanish department has benefited through the gifts of Mr. J. C. Cebrian of San Francisco, who has donated about three thousand books to the University.

Sanskrit.—The Sanskrit department has enjoyed another quiet year. The number of students is small, yet not appreciably smaller than in other American and European universities. The lecture courses show a tendency to grow, the number of students in each being between forty and fifty. It is also felt that in such a subject, instruction should be given gratis to those who, for one reason or another, do not find it convenient to register in the University. In accordance with this policy, two small classes were conducted in 1912-13, which left no trace in the recorder's office.

But in a subject so difficult and remote, the chief immediate service must be through lectures and a kind of publication that is generally readable. Thus the department volunteered to give a course of six lectures on ancient Indian philosophy and literature during the summer school of 1913. The attendance and interest were gratifying.

Slavic Languages.—The following courses were given in the department of Slavic languages during the past year: Elementary Slavic, advanced Russian, advanced Polish, church Slavic, and Russian novelists. The Polish class dealt with Polish literature and history.

Zoology.⁷—The enrollment in this department has risen from 366 and 397 in 1911–12 to 342 and 560 in 1913–14. The number of graduate students has increased from 22 to 29. Eleven students are looking toward the doctorate in zoology. It is worthy of note that the 29 graduate students represent 16 different institutions. A popular course in general zoology has been added. The vacancy occasioned by the loss of Professor Torrey has been filled by the accession of Dr. S. J. Holmes. In the matter of research, professors and instructors have published eight papers and have nine in press. Graduate students have published 24 papers and 13 have been completed or accepted for publication within the year, making a total of 50 papers. Two more volumes of the publications in zoology have been completed. Much time and effort has been given during the past year to the biological survey of the San Francisco Bay, carried on by the Steamer Albatross, of the United States Bureau of Fisheries. Professor Kofoed of the department has co-operated in the supervision of the work. The complete results of the survey will provide a handbook to the fauna and flora of the bay and adjacent waters. The provision last year of additional space in East Hall has been more than utilized by the increase in students, notably graduate students. Less than half of the students doing research can be accommodated in our two research laboratories. The extensive collections of the department, which are in frequent demand, cannot be properly displayed owing to the lack of space. There is a growing demand for access on the part of the public. The specialization of the Scripps Institute along a definite programme of research has resulted in the almost complete detachment of our advanced graduate students from the biological station at La Jolla. Professor Kofoed suggests that a local biological station at some point nearer to the University than La Jolla or some regular provision for our students at La Jolla is imperative. He calls attention to the need of an aquarium and an animal culture house and of additional literature essential in the study of biological subjects.

⁷ See list of gifts to the Department of Zoology on p. 195.

ALUMNI SECRETARY

BERKELEY, July 1, 1913.

To the President of the University,

SIR: I have the honor to submit herewith my report covering the period from July 1, 1912, to June 30, 1913.

The Alumni Association of the University of California is an organization formed for the purpose, as expressed in its constitution, "of the promotion of good fellowship and kindly feeling among its members, and the advancement of the interests of the University of California." The government of the association is in the hands of the Alumni Council, formed of five officers and ten councilors.

Every graduate of the University of California is a member of the Alumni Association, but the right to vote on the affairs of the Association is held only by those who have paid their annual dues. Considerable discussion has been evoked by the proposal to make non-graduates of the University eligible to associate membership in the Alumni Association. A poll of the alumni associations of other universities shows that about one-half admit non-graduates to membership in their alumni associations, while the remainder require graduation. At present non-graduates are admitted to membership in the local University of California clubs. The question of admitting non-graduates to membership in the Alumni Association will probably be decided during the coming year, and a constitutional amendment to that effect submitted.

The question of bringing the alumni into closer touch with University affairs has been constantly before the Alumni Council during the past year. It is essential that the alumni know of

University activities if they are to remain in close sympathy with their Alma Mater. This purpose has been furthered by the "Alumni Weekly," a journal containing news of the University and of the alumni. The circulation of the "Weekly" averages 1500 and has been growing steadily. The success and growth of this publication is one of the most fruitful fields for the labor of the Alumni Association, as a large body of readers will mean just so many loyal and informed alumni sympathetic at all times to the needs of the University.

Local alumni clubs have been the means of bringing many graduates into closer touch with the University, especially as they include ex-students as well as graduates. With the formation of three new local clubs during the past year there are now eighteen of these local clubs.

The reorganization of the University of California Club of San Francisco has been the means of enlisting the aid of a great number of ex-students in the service of the University. Believing that a large membership is desirable the directors of the San Francisco Club in July, 1912, authorized the reduction of the monthly dues from \$3.50 to \$1.00 and with the slogan of "A Thousand Members" the campaign was begun. After two months of strenuous work under the direction of Scott Hendricks, '06, more than 1300 members were enrolled. The quarters of the club are at Geary and Stockton streets.

During the past year, in addition to the usual alumni reunions, a new plan was developed. In previous years the men of the different classes met separately, but this year a general gathering was held under the direction of the Association of Class Secretaries. The dinner, informal in nature, was held at the Commercial Club, on the evening before the Stanford-California game, and more than 300 alumni were present. That was a very creditable number considering the fact that the dinner was in the nature of an experiment. This year's dinner should see the attendance doubled, as the gathering of last November met with very hearty approval.

The Dix system of class reunions was employed at the last Commencement for the first time, with very great success. This

plan provides for alumni reunions by four classes which were in college at the same time, each class meeting in a Dix reunion every four years, but with a different set of classes, so that during a period of sixteen years each class will have met once in alumni reunion with all the classes which were in college during its generation. This commencement witnessed Dix reunions by the classes of '88, '89, '90, and '91 and by the classes of '07, '08, '09, '10, and '11.

During the past year a project to build a University dormitory was fostered by private persons and the financial support of numerous graduates was solicited. This project seemed rather impracticable, and appeared to look rather to financial profit than to the betterment of the University. Fortunately the plan was stopped before it had gained very great headway. Graduates before subscribing to any plan to assist the University financially should be careful to see that the project has the sanction of the Alumni Council or the University authorities. In this way it will be possible to guard against private projects masquerading under the name of the University.

The finances of the Alumni Association are in a prosperous condition, as the following report shows:

Alumni Hall Fund, June 30	\$9,657.56
Life Membership Fund, June 30	3,990.54
Treasury, April 14	705.42

The following officers were chosen at the May election for service during the succeeding year: J. Arthur Elston, '97, president; Sayre Macneil, '08, first vice-president; Frank J. Solinsky, '77, second vice-president; Duncan McDuffie, '99, treasurer; John L. Simpson, '13, secretary. Councilors: Robert Belcher, '00; Lewis D. Bohnett, '06; J. A. Douglas Brookman, '10; Mrs. H. Cooper Douglas, '02; Adolphus E. Graupner, '97; Chaffee E. Hall, '10; Frank Otis, '73; William A. Powell, '02; M. Thayer Rhodes, '08; and Mrs. E. B. Stanwood, '98.

Respectfully submitted,

HERMAN H. PHLEGER, '12,

Secretary.

APPOINTMENT SECRETARY

BERKELEY, July 1, 1913.*To the President of the University,*

SIR: No universities of the first rank are now without an officer corresponding to the Appointment Secretary. Harvard University maintains two offices, one for the recommendation of graduates as teachers, and another, in Boston, for the recommendation of its men for technical and business positions. In order to foster a closer relation with firms which employ skilled men, the University of California should have headquarters in the heart of San Francisco, where employers seeking men can find lists of available candidates, with their qualifications plainly stated, and opportunity may be offered for a personal conference. Possibly the University of California Club could be utilized for this purpose. In view of the vastly increased demand we must expect in the near future, some plan which does not necessitate a long distance telephone call should bring our engineers and chemists, our architects and agriculturists, our secretaries, bank employees, insurance men, and business men in general into closer touch with the business world.

The rapid increase in the force employed by the secondary schools and the greater care with which school officers now approach their task of selecting qualified teachers have more than doubled the demand on the Appointment Secretary for discriminating information in regard to candidates for the teaching profession. Since the Appointment Secretary is the custodian of the reports of the University examiners of schools, appointing officers are in the habit of calling for quotations from this great mass of information, which was gathered for another purpose but at the expense of the state. We are rapidly approaching "efficiency" methods in the appointment of teachers in this state. School officers formerly selected from the candidates who pre-

sented themselves as a result of chance information. They now seek their teachers, and in the search for the best available person make use of every source of information. The responsibility of gathering, tabulating, studying, and arranging information for ready reference grows, and the University must meet this demand, or relinquish its role of leader.

It seems a simple rule to say that each training school should recommend its own graduates and no others, but with the constant migration of students, especially those in the graduate status, where high school teachers must be sought for California schools, it is impossible to adhere to any rule. The fact that the 500 graduate students enrolled at the University of California last year represented 122 different institutions gives some hint of the complex situation. With school officers demanding many more teachers in some lines of work than the University can furnish, and asking where such teachers can be obtained if not at their own state university, the Appointment Secretary is under the necessity of co-operating with other institutions of higher training, especially in the search for men prepared in mechanical arts, agriculture, science, and physical education.

Two things will probably bring a large influx of teachers to California. In "A comparative study of public school systems of forty-eight states," recently issued by the Division of Education of the Russell Sage Foundation, it was stated that California pays a higher average salary to its teachers than any other state. The Panama-Pacific International Exposition and the meeting of the National Education Association in Oakland in 1915 are another attraction. We should do our part in receiving these teachers, whose enterprise brings them to California; we should help those who are needed here to find the right place. But one thing we must do; we must protect our own teachers who are now in training by seeing to it that they have information in regard to the demands in new fields of work and the overcrowding in the older fields, to which they now gravitate through force of habit.

Respectfully submitted,

MAY L. CHENEY,
Appointment Secretary

SAN FRANCISCO INSTITUTE OF ART

SAN FRANCISCO, July 1, 1913.

To the President of the University,

SIR: I have the honor to submit the following report of the San Francisco Art Association (San Francisco Institute of Art) for the year 1912-13.

The record shows a continuance of those activities which have made the Art Institute and School of Design so successful in the past in carrying out the purposes for which they were founded. Probably no other art institution in the United States undertakes so much and such varied work without financial support from the outside. The Art Association is entirely dependent on its own resources. Its greatest need at the present time is a building suitable for its purposes to replace the temporary frame structure erected after the fire of 1906.

The regular exhibition of the Association's paintings and sculpture has been maintained for the benefit of the members, the students of the University, and the general public. The following is a list of the special exhibitions held during the year: November, 1912, a collection of process work, etchings, and illustrations, at the Home Club, Oakland; December 18, 1912, to January 2, 1913, a collection of oil paintings, water colors, and sculpture, constituting the annual exhibition of the California Art Club of Los Angeles; January 8 to 13, 1913, a collection of textiles and other examples of decorative design, by Ralph Helm Johonnot; April 3 to May 2, 1913, Annual Spring Exhibition of the San Francisco Art Association, including work in various mediums by California artists; May 2 to May 8, 1913, a collection of etchings by the California Society of Etchers; May 16 to May 27, 1913, Annual Exhibition of the School of Design; May 29, 1913, Exhibition of Architectural Drawings, annual competition

of Beaux Arts Society, Pacific Architectural League. Lectures were held in the Institute under the auspices of the Association, the School of Design, and the San Francisco Society of the Archaeological Institute of America on November 14, December 2, December 12, 1912, and January 7, January 14, January 16, February 13, March 13, and April 10, 1913. Receptions were held on the evening of the opening of the Los Angeles Exhibition; the Association's Spring Exhibition, and the School Exhibition; also special receptions for Mr. John E. D. Trask, Chief of the Department of Fine Arts of the Panama Pacific Exposition, and for Mr. Ralph Helm Johonnot, formerly of Pratt Institute, Brooklyn.

The School of Design is in session nine months in the year, this period being divided into two terms. The attendance has steadily increased, the number of pupils enrolling this year being 402, the enrollment last year being 377. There are eleven instructors in the faculty. The high standard of the school in the matter of discipline and industry has been fully maintained. The exhibition at the end of the year was large, of wide variety, and was universally commended. The Art Association grants annually twelve scholarships, as a reward of merit in the school and to assist young persons of talent who are unable to pay the required fees. The school also, by an arrangement with the Julian Academy of Paris, awards, through an annual competition, a scholarship in that institution and a silver medal. A special course in Decorative Design, by Ralph Helm Johonnot, formerly of Pratt Institute, was made one of the features of the year, in accordance with the Association's policy of bringing instructors of distinction in certain lines of art to the school, whenever possible.

In addition to the work outlined it is the custom of the Association to encourage correspondence with those desiring information on art topics, and to give aid by advice and assistance to all art movements in the city and state when requested.

Respectfully submitted,

VANDERLYN STOW,
President.

DENTAL DEPARTMENT

SAN FRANCISCO, July 1, 1913.

To the President of the University,

SIR: I herewith respectfully submit the report of the Dental School for the year ending June 30, 1913.

The faculty has made a special effort to improve the facilities for teaching to the fullest extent. New apparatus, including a special operating table, stereoscopic tube stand, and a stereoscope, were added to the X-ray laboratory, which undoubtedly makes it the best-equipped laboratory of the sort in any dental school in the country. No subject is of greater importance in dental surgery today than radiography.

Photographic apparatus has been added which will enable the staff materially to improve their teaching methods, as well as add to the permanent records of the school, and a new lot of microscopes acquired to provide for the increased enrollment.

The equipment of the school is being taxed to accommodate this increased enrollment, an equitable balance being maintained by gradually increasing the requirements for promotion and graduation, with the result that a better quality of student material is sent out into the ranks of the profession.

This policy is justified by the fact that all of the graduates for the years 1911-12 and 1912-13 were successful in passing the examinations given by the State Boards of Dental Examiners in the respective states wherein they took the examinations.

A report of the United States Bureau of Education based on the number of students graduating from dental schools and subsequently passing State Board Examinations gives our dental school an efficiency rating of 100 per cent. Though these report

are gratifying, it is believed that even a higher preliminary training, such as that required for a Junior Certificate, would produce a higher type of men in the dental profession.

With the establishment of the first independent dental school, in Baltimore in 1840, the profession of dentistry was practically divorced from medicine. All dental instruction on the continent was given in medical schools. The rapidly increasing number of dental schools, with, generally, lower standards than medical schools, showed a commercial tendency gradually lowering even these standards.

Within the last decade a reversal of opinion has prevailed, with the consolidation of medical and dental schools within the same universities, notably Harvard, where instruction in medical subjects is given to dental students in the medical school.

In Germany this opinion has demanded the same preliminary training of the dental student as is required of the chemist, engineer, or physician, and the dental students must now register in dental departments rather than in the philosophical faculties.

In view of these progressive changes the Regents are urged to re-establish the Junior Certificate requirement for admission, to be enforced not later than August, 1915.

The future of the department rests on two things: first, a higher preliminary standard that will give students the same preparation demanded in other branches of medical science, and second, a budget that will provide full paid service in the major subjects, namely, Operative and Prosthetic Dentistry.

The Carnegie Foundation proposes to investigate the dental educational institutions soon, and it is hoped that a favorable criticism based upon the above suggestions will be received.

Respectfully submitted,

JAS. G. SHARP,
Dean.

EXAMINER OF SCHOOLS

BERKELEY, July 1, 1913.

To the President of the University:

SIR: I have the honor to submit herewith my report for 1912-13 as Examiner of Schools.

Since the report of the previous year, there have been no changes in the fundamental principles by which schools are judged eligible or ineligible to be placed on the formal list of accredited schools. The standards by which the schools are judged are printed in the report of last year.

The desire of communities to have their high schools conform to these standards and become eligible to accrediting is a very strong influence, making for good buildings, adequate library and laboratory facilities, efficient teaching, and community support. This is especially true of new and growing communities. Advice and suggestion with a view to increasing the general efficiency of the high schools are eagerly sought from the University visitors by high schools and the communities which they represent. So highly is the privilege of accrediting held that it is seldom found necessary to "discredit" a school that has once been placed on the accredited list. To fail of accrediting is considered a disgrace both by school and community.

The very fact that accrediting is so highly valued, and that to be dropped from the accredited list is taken so seriously, makes the Committee on Schools all the more careful about admitting new schools to the list. As a rule, a school does not reach accrediting before it has been in operation at least four years; in most cases schools actually wait considerably longer than this. Meanwhile the Examiner of Schools makes, if pos-

sible, yearly visits to the school and seeks, by advice and suggestion to principal, teachers, and School Boards, to promote the general efficiency of the school.

This deliberation in admitting new schools to the formal accredited list has been found to work injustice in some cases to the worthy pupil. For example, a pupil may have done three years of his four-years' high school course in an accredited school and obtained recommendable marks on all his studies; then he enters the new school for his last year and does good work. For various reasons the new school is not ready for formal accrediting, but the Examiner is convinced that this pupil is fit and ought to be admitted to the University. So, in order to prevent the injustice that was once inevitably associated with such cases, a few years ago the Examiner of Schools proposed to the Committee on Schools that there should be formed a supplementary list of schools which should be allowed to recommend such graduates of the current year as of the case described above. The Committee on Schools adopted the proposal, and this supplementary list is now made out each year. This list is informal; it is not printed, and varies greatly from year to year.

Several good features, and few if any bad ones, mark the operation of this plan. First, the University avoids penalizing a qualified and worthy student; second, plenty of time can be allowed, without injustice, for the school to reach the standards of formal accrediting; third, the students recommended by such a school are in a sense samples of what the school is doing and what the University may expect, and thus furnish a valuable clue for determining the eligibility of the school for formal accrediting, when all other conditions have been complied with. It is worth while to remark that this privilege accorded through the supplementary list of schools has seldom been abused; students recommended by such schools rank fully as well as those recommended by regularly accredited schools.

During the current year, the Examiner has visited personally about ninety schools, located in widely separated parts of the state; he has held many conferences with teachers, and met not infrequently representatives of the School Boards.

In general, the high schools of the state are developing rapidly in the direction of the newer educational ideals; "social service" and "practical efficiency" are displacing "formal discipline" as the watchwords of the "new" education. As a result the newer subjects, such as manual and domestic arts, agricultural and commercial work, are extremely popular. The great demand for teachers for these fields cannot be adequately met; and consequently, not a little inferior work is found in these subjects. Most of the older subjects are still taught, and being for the most part elective, they are taken with real interest on the part of the pupils.

With the great expansion in the list of subjects taught in the high schools and accepted for admission to the University, there has come no falling off in the general scholarship record of the freshman classes.

I would call attention especially to the excellent feeling that exists on the part of the high schools toward the University. The schools feel that the University is co-operating ably with them in their endeavor to solve the many new problems of secondary education. Not a little of this good feeling, I believe, is due to the University visitors who have been sent to the schools for the past three years. The value of these visits is, in my opinion, very great, and not less so to the University than to the schools. Since for various reasons the visitors were not able to visit all schools this year, I recommend that more visitors be appointed so that each may be assigned fewer schools. In this way it will be possible to visit practically every school each year.

Full report of Examiner of Schools, with statistical data, printed as separate bulletin "Report of Examiner of Schools to the President of the University of California for the year 1912-13."

Respectfully submitted,

W. SCOTT THOMAS,

Examiner of Schools.

HASTINGS COLLEGE OF THE LAW

SAN FRANCISCO, July 1, 1913.

To the President of the University,

SIR: I have to report that the affairs of Hastings College of the Law for the college year of 1912-13 have prospered, and that the college is in good condition both financially and as to teaching force. The total registration was 95, a falling off of 25 from the preceding year, occasioned probably by the increased requirements for admission; yet notwithstanding these, there was a registration of 33 for the junior year. The college is to be moved during this month to the Underwood building on Market street, where quarters for it have been secured which are quite as eligible as those now under use by us. Our teaching force has been increased by the addition to it of Mr. George L. Bell. We are now to give two hours more of instruction a week, making our hours each week 33, exclusive of moot court work. The San Francisco Law Library, to which our students have access, is rapidly growing, its volumes now numbering nearly 30,000.

Respectfully submitted,

EDWARD R. TAYLOR,
Dean.

UNIVERSITY INFIRMARY

BERKELEY, July 1, 1913.

To the President of the University,

SIR: I have the honor to submit to you the report of the University Infirmary for 1912-13.

So intimate is the relation of the Infirmary to the University that its activities increase in proportion to the increase of the University family. As an indication of this fact, the number of medical examinations of intrants grew from the total of 1,705 (974 men and 731 women) in 1911-12 to the total in 1912-13 of 2,017 (1,173 men and 844 women).

Throughout each department of the Infirmary, then, it is hardly necessary to emphasize, the work of the present year has been heavier than the work of the year preceding. In the Dispensary particularly has the work grown to large proportions. Whereas 21,266 visits were recorded in 1911-12 by 2,926 students, this year 3,501 students visited the Dispensary 25,976 times, making the year's increase 4,710 visits. In other words, 74 per cent of the University students made use of the Infirmary. The daily average has risen from 74 to 91 visits; the average number of treatments per patient has risen two-tenths of 1 per cent. The total diagnoses made were 9,644, an increase of 529 over the previous year. Some unfortunate students suffered from as many as ten separate maladies.

The bed patients, however, were slightly less numerous this year than in 1911-12, when they numbered 437. This year there were 433. There are at least two reasons for this decrease: students are learning the lesson of prevention, and are having their troubles met in the earlier stages of development; there was

no epidemic of measles and mumps among the students as last year, when 42 were victims of measles and 57 of mumps. The entire number of cases of these two diseases aggregated this year but 26.

The two serious diseases to be combated among the students continue to be appendicitis and tuberculosis. Ten operations for appendicitis were performed, and sixteen cases recovered without operation. Of these sixteen students, several suffered recurrent cases in vacation, and six were operated upon in their various home towns. The necessity for early operation in appendicitis is yet to be appreciated by the public, though if one went no further than the cases here cited one must recognize the truth that early surgical attention minimizes to a great degree the danger of this disease. The one death among the ten students operated upon at the Infirmary, and the three deaths among the recurrent cases, could all have been prevented, probably, if the patients would have submitted to a timely operation.

Six students were sent home during the year with pulmonary tuberculosis. Of these six two are already dead. Had these students been prevented from registering when they applied for entrance these cases need not have developed here in the University. The medical examination records of these students show that in the opinion of the examiner there was in each case indication that the lungs were not quite sound. It has always been the custom of the Infirmary to give students the benefit of a doubtful diagnosis, and to admit them. That the custom is not a wise one is borne out by the above results. On the other hand, it has always been the custom to send home at once those students who present themselves for medical examination and are found to have active tuberculosis of the lungs. One must not lose sight of the significant fact that the age at which the average student begins University life is the age when tuberculosis is particularly virulent. Unless heroic and patient treatment is begun at once there is small chance of recovery; the majority of young people so afflicted die within three years.

Virulent smallpox appeared in Berkeley in January, 1913, causing the death of five persons. There was no case in the

University, but 1,230 students voluntarily presented themselves for revaccination at the Infirmary. Though these students had all been vaccinated, they wanted to be doubly sure that they were immune from smallpox. Of this large group a small number had been told at the time of their matriculation medical examination that the scars they bore were doubtful vaccinations. Such students obtained in almost every case a satisfactory reaction or "take." Students whose scars had been passed upon as satisfactory obtained in most cases only a modified reaction (vaccinoid), or an immunity reaction, indicating that they were already fully protected. The histories of all these vaccinations were carefully kept and used as material for a paper published by Dr. John N. Force under the caption, "The Skin Reaction after Cowpox Vaccination: a Possible Aid in Public Health Administration."

Vaccination against typhoid fever is not compulsory, but interesting work in this direction has been done at the Infirmary by Dr. Force during the year. Some 261 students requested immunization against typhoid and were vaccinated with a sensitized vaccine prepared under the direction of Dr. F. P. Gay of the Department of Pathology and Bacteriology. This vaccine does not produce the unpleasant symptoms which follow the use of the U. S. Army formula. During the coming year it is expected that a large number of students will ask to be vaccinated against typhoid fever, for the conviction is growing among engineers and those who frequent rural districts that protection against typhoid is thus assured to them, and that it is the part of folly not to share what is thought by many to be the most precious gift of science to humanity in many years.

The Infirmary building, despite its many additions and modifications, is still sadly inadequate to University needs. The new rooms which were so gladly welcomed as providing increased space for the Dispensary a year ago are already outgrown. More students flock to the Dispensary than can be accommodated without overcrowding and uncomfortable waiting. A floor space of at least 3,000 square feet is an immediate requirement. When it is realized that the present Infirmary building lacks compact-

ness, a quality essential to economical administration; that it lacks safety, because it is indubitably a fire trap; that it lacks simplicity of arrangement, and adaptability to its purpose, facts inseparable from its frequent enlargement and remodelings from its original form as a dwelling-house and from its position on slanting ground, making necessary steep stairs (there is no elevator), connecting corridors, and inconvenient inclines,—it will also be realized that the hope for a building more adapted to hospital requirements is based on good sense rather than on sentiment. In addition, the inadequacies of the present building all lower the efficiency of the nursing staff.

Of the inconveniences of the present building, the kitchen, in its smallness of area, its poor ventilation, its paucity of storing place, is a convincing example. In this little room twelve and a half feet by fifteen feet, with the ceiling but seven and a half feet high, must daily be prepared food for a family never fewer than twenty-five and often as numerous as fifty! The pantry, which contains the ice-chest and supplies of food, including canned goods, vegetables, fruits, milk, etc., measures five and a half by seven feet! There seems no way in which even temporary relief can be gained, for the situation of these rooms is such that enlargement in their present location seems impossible.

Respectfully submitted,

G. F. REINHARDT,
University Physician.

UNIVERSITY LIBRARY

BERKELEY, July 1, 1913.

To the President of the University,

SIR: We have the honor to submit the following report on the progress of the University Library since June 30, 1912.

The accessions of books during the fiscal year 1912-13 were as follows:

By purchase:	Volumes	Volumes
General fund	8,953	
Class of 1900 fund	20	
Class of 1902 fund	22	
Class in History 1 fund	575	
Denicke fund	43	
Gaelic League fund	5	
Juckseh fund	50	
Knights of St. Patrick fund	83	
Macon donation	3	
Mary Lake fund	111	
Meyer fund	75	
Moffitt fund	40	
Reese fund	352	
Richardson fund	15	
Sather fund	1,448	
Spreckels fund	40	
By purchase for departments	1,646	
Adams fund (Agriculture)	18	
Crocker fund (Physiology)	22	
Thorsen fund (Anatomy)	3	1,689
By binding of perodicals	1,682	15,206
By exchange		1,835
By gift		4,190
Total volumes received		21,231
Total volumes in library		259,737

Mr. Bumstead reports current serials received:

By purchase	1,141	
By exchange	2,552	
By gift	2,284	
		5,977
Unbound pamphlets received by gift		3,782

The following sets of periodicals have been added by purchase:

Académie des inscriptions, Paris. Monuments (fondation Piot), 19 vols.; Annales de l'institut Pasteur; Archives parlementaires, 1787-1799, 79 vols.; Baumgarten's Jahresbericht, 23 vols.; Bolletino di paletnologia italiana, 37 vols.; Ergebnisse der allgemeinen Pathologie, 13 vols.; Jahresberichte der Geschichtswissenschaft, 22 vols.; Journal für Ornithologie, 55 vols.; Journal of Indian art, 1884-1912; Journal of the Royal Asiatic society, 1834-1911; Kunst und Kunsthandwerk, 14 vols.; Martens' Nouveau recueil de traités (completion); Neurologisches Zentralblatt, 25 vols.; Revue de l'arts Chrétien, 29 vols.; Revue suisse de zoologie, 1893-1906; Zoologisches Institut der Universität zu Wien, 14 vols.

The more costly monographic books bought this year are almost all in the department of fine arts, such as:

Brière's Chateau de Versailles; Contet's Vieux hotels de Paris; Espony's Fragments d'architecture, also his Monuments historiques; Raoul-Rochette's Choix de peintures de Pompéii; and Salzmann's Nécropole de Camiros.

Mr. J. C. Cebrian, supplementing his 900-volume gift of last year, added about 500 others, including some important works on Spanish art, history, and philology, two incunabula (Baudoin and a Kalendar), and two manuscripts (an Arabic prayer-book, and an illuminated vellum Breviarium Gothicum of the 13th century).

Regent James K. Moffitt authorized the purchase at his expense of sets of Mansi, Amplissima Collectio Conciliorum, complete to date, 46 vols. in 50, with Gallia Christiana, 16 vols.; also Acta Sanctorum complete to date, 66 vols. These books are now on the way from France.

Regent Charles S. Wheeler presented an original manuscript of historical interest—an order of Queen Elizabeth, written on parchment and dated December 4, 1594, directing Lord High

Treasurer Burghley to pay £31,650 for outfitting the ill-fated expedition to the West Indies, which sailed in August, 1595, under the command of Sir Francis Drake and Sir John Hawkins.

Dr. Samuel H. Willey gave 30 volumes, thirteen of which were composed of pamphlets dating back to 1852, and three comprising Dr. Willey's own pamphlet and press writings, shedding additional light on the history of the College of California.

From Professor H. Morse Stephens were received the British Statutes during the reigns of William IV and Victoria; from Miss E. T. White, 178 vols.; from Professor S. C. Chambers, 166 vols.; and from Mrs. M. A. Farquhar a set of the *New York Semi-Weekly Tribune* from June 11, 1858, to December 28, 1866. By means of this, in addition to our copies of the *New York Times*, 1851-1865, and the *New York Observer*, 1860-1867, we have the period of the Civil War well covered by contemporary accounts.

Gifts of money for the purchase of books were made by: Sir Richard M'Bride (\$500 for Pacific Coast History); the Knights of St. Patrick (a third gift of \$100 for Celtic literature); H. I. Randall and H. B. Taylor (\$20 each to the Class of 1887 fund); and Mrs. Janet Bruce Macon (\$5.00).

The coin collection was increased through the purchase by the Latin department of 29 ancient bronze and silver coins; and by gifts from Professor William Popper (22 Roman bronze), Samuel Haight (6 bronze), and Professor H. Morse Stephens (6 Carthaginian).

Inter-Library Loans.—We have assisted other institutions by 88 loans (189 volumes); we have profited by the kindness of other libraries by 45 borrowings (131 volumes). This branch of work is increasing. Loans are made, or solicited, not of inexpensive, ordinary in-print books, but of the less commonly owned and rarer books, such as are needed by specialists and scholars. Notwithstanding the considerable size of the State, Stanford and University libraries, we borrowed from each other twice as many books during 1912-1913 as in the previous year. This fact serves to emphasize the propriety, and ultimately the necessity, of an effort to co-ordinate between these three institutions in the mat-

ter of book purchases; as not even a national library can cover completely the entire field of the world's printed literature, certainly neighboring libraries might well arrange to avoid duplication of long, costly, and infrequently used sets, and to specialize each along definite lines.

Accessions Department.—Additions to the library between July 1, 1912, and June 30, 1913, numbered 21,231 volumes, of which 18,073 were new books, and 3,158 newly bound volumes of periodicals, etc., not previously accessioned. The total is considerably lower than last year (26,261), owing to the dearth of those large gifts which so particularly distinguished the year 1911-12.

Various changes have been made in records and routine in the two directions of simplifying procedure and of providing the departments of instruction with information as to the condition of their funds and their orders.

Catalogue Department.—* On February 15, 1913, a programme was submitted to you by the associate librarian, for beginning the work of reclassifying and recataloguing the library. The field to be treated embraced history and the social sciences, occupying the greater part of the fourth and fifth stack floors and numbering about 75,000 volumes. It was estimated that these could be covered within three years with an increase of not over \$5,000 a year in the library budget. The programme received your approval on February 17.

* I desire to emphasize the fact that the change from the Rowell to the Library of Congress classification is in no wise a reflection upon the former, which possesses many points of excellence. The following characterization from Dr. E. C. Richardson's "Classification, Theoretical and Practical" (1912), a study and comparison of existing systems, is of interest in this connection: "One of the best combinations of the scientific and practical in medium expansion among modern systems. The notation is, however, the rather discredited integral system." The Rowell classification was devised to meet the requirements of a small collection under a certain set of conditons, and filled its purpose admirably. The conditions no longer exist; and the rapid growth of the library, together with the new factors introduced by the publication of the Library of Congress schedules and the multiplication of printed cards bearing the Library of Congress classification numbers, were felt to indicate the necessity for aligning this library with other large institutions in the adoption of uniform practice, with augmented efficiency and economy.—H.L.L.

The library was so fortunate as to secure the services of Dr. Edwin Wiley, assistant classifier in the Library of Congress, to undertake the work. Dr. Wiley arrived in May, having visited en route the libraries of Yale and Johns Hopkins universities and the University of Chicago, where similar work is in progress. Miss Nella J. Martin and Miss Philena R. Sheldon, of the Library of Congress, and Miss Anne S. Pratt of the Yale University library, were promptly engaged and arrived early in July. Work is now all but finished on the collection in Political Science, embracing numbers 256 to 287 of the old classification and corresponding to class J of the new.

As a preliminary to recataloguing, it was necessary to complete the filing of printed cards in the Library of Congress depository catalogue; work which was somewhat in arrears owing to delay in the delivery of cards. A number of student assistants were engaged during April and May, and when Miss Beaver gave up her position on June 1 the depository cards had been brought into two main and two small alphabets. Miss James, who succeeded Miss Beaver in charge of this work, has reduced the four alphabets to two, and is now engaged in combining these.

The other components of what will be eventually the union depository catalogue are not expected to play any considerable part in the work of recataloguing for the present, and have not been combined with the Library of Congress cards. Their condition is as follows:

Harvard College library, about 10,400 cards arranged alphabetically in one file.

John Crerar library, all cards printed to date, about 93,000, arranged in two alphabets, one revised and the other awaiting revision.

The University of Chicago library, all cards printed to date, numbering 833, arranged in one alphabet.

Royal Library in Berlin, about 26,500 cards, partially arranged. This file embraces cards for German dissertations for the years 1910-11 (duplicate sets of approximately 9,050 cards each), and for the years 1912-13 includes also complete files of series A and B; that is, of cards for German publications, and

for publications other than German but excluding those in oriental languages.

Eventually all of these cards will be combined with those of the Library of Congress in a single alphabet with the necessary cross-references, forming a bibliographical tool of great value.

In compiling the new catalogue, the department is faced with the problem of duplicating entries for those books for which printed cards are not obtainable. Any satisfactory system of mechanical duplication has a great advantage over typewriting in that only the first copy needs to be corrected. It is also possible by mechanical means to establish a reserve supply of cards for little more than the cost of stock, thus providing in advance for change or extension of the main catalogue, for duplicate departmental catalogues or special bibliographies or lists of any kind, and for possible exchanges with other institutions. Experiments with the multigraph in the President's Office have not proved very successful, but this method has hardly had a fair trial as yet. It will be tested further, and the possibilities of the University Printing Office will also be investigated. The latter method will undoubtedly be the most satisfactory, unless the cost or the delays incident to pressure of other work at the Printing Office render it prohibitive. Final decision in the matter will depend to some extent upon the outcome of negotiations about to be opened with the Library of Congress. Informal assurance has been received that the Library of Congress will print cards from copy furnished by this library, but the proportion of our titles which the Library of Congress will undertake to print, the length of time involved in procuring the needed cards, and other details are still undetermined.

The catalogue department is now furnishing card copy to the Library of Congress for all of the University publications and for other titles on request. During the fiscal year ending June 30 last, copy was furnished for 189 University publications and 26 other titles, for each of which the Library of Congress returned a number of printed cards without cost. The department has also undertaken to furnish the California State Library with a card for each book recatalogued, for its union file, and is

supplying the Department of Zoology and the School of Architecture with cards for the books in those departmental libraries.

Reference, Loan, and Shelf Departments.—The use of the reading-room has steadily increased. The table capacity of 372 proved insufficient early in the first semester, and extra chairs were placed around the room wherever vacant floor-space could be found. About 150 more readers were cared for in this manner. The capacity of the periodical room also was increased by means of extra chairs from 97 to 125, but late comers were frequently unable to find accommodation in either room. The figures given above do not include those students whose work was carried on in the stack or in the seminar rooms. Pressure was heaviest just before examinations, but continued in greater or less degree all through the year. Four tables with a normal seating capacity of 48 were installed in the reading-room during the summer, and 140 new chairs have been ordered; but if use of the library increases in proportion to the growing registration in the University, the relief thus offered will be slight. It is, nevertheless, all that can be done with the space available in the reading and periodical rooms. An addition to the reading room in the form of an L on the east side of the building is suggested under the caption "Library Building."

This greatly increased use of the library has resulted in a corresponding increase in the work of the reference and loan departments. The reference department is virtually a product of the new building, as conditions in the old Bacon Hall, with its limited seating capacity, were such that in 1911, before the library was moved, one man was able to combine the functions of reference librarian and classifier. For the last two years the work of this department has been principally in charge of Miss Coulter and Miss Oddie, as Mr. Mead was forced to devote half of his time to classification and the pressure at the loan desk required Mr. Joeckel's constant attention. This arrangement was not wholly satisfactory, as with the long library days—14 hours throughout the week and 8 hours on Sundays during term time—it was seldom possible to have more than one assistant in the reading room at a time; a situation which not only rendered

proper supervision of the room impossible, but required much of the necessary work of the department to be done out of hours. In the loan department, the student service developed symptoms of weakness under the increased pressure. Although the student assistants in this library during the last two years have been generally as satisfactory as could be expected, the broken days and short period of service render very difficult the acquirement of that speed and accuracy which are essential in this department. The library is constantly faced with the necessity for training new men for positions in which experience is the most valuable asset, and is frequently left short-handed at times of greatest pressure, as these are also the busiest times for the students.

The following tables show the recorded circulation of books in the six months January–July, 1913, under the heads of day use (books drawn from the stack for use in the building), home use, and overnight (reserved books allowed out of the building only during closed hours). The figures do not include periodicals issued from the periodical room, nor do they show the enormous use of reference and reserved books shelved in the reading room, which are consulted without formality. They should be read in connection with the calendar, bearing in mind that the spring semester opened January 14, the final examinations were held April 28–May 10 inclusive, and that the Summer Session opened June 23 and continued through July.

Issued for	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
Day use	5,607	10,319	13,018	13,110	3,077	1,528	5,703	52,362
Home use	4,722	5,654	5,929	5,369	2,476	2,047	3,961	30,158
Overnight	145	417	564	879	117	49	447	2,618
Total	10,474	16,390	19,511	19,358	5,670	3,624	10,111	85,138

Another side-light is afforded by the shelving records for the fiscal year ending June 30, 1913. During this period 180,000 volumes were shelved in the main stack alone, no count having been taken of those shelved in the reading and seminar rooms. This represents the ordinary routine work of placing new accessions and replacing books which have been used; the shifting mentioned below is not included.

The growing congestion in the stack has necessitated a great deal of shifting to permit the shelving of new accessions in their proper places. The records of the shelf department show that during the year ending June 30, 1913, some 159,000 volumes were moved for this reason, including the entire contents of the fourth and fifth stack floors. This gives some indication of the enormous waste of effort which will ensue when our stack becomes really crowded; a condition it is rapidly approaching and will reach within two years unless relief is provided. This matter is treated under the caption "Library Building."

The second inventory of the library since its removal to the new building was completed last December; the third inventory is now about two-thirds finished. The programme of the shelf department contemplates a complete inventory every year. Some parts of the library requiring more attention than others are covered as follows: reserve collection, once a week; reference collection, once each half-year and once in the summer; seminar collections, once a week. The shelves of the departmental libraries are read once a year.

A catalogue of the maps in the library has been undertaken by the shelf department and is about two-thirds completed. The arrangement and shelf-listing of the unbound material (college and university publications, theses, etc.,) recently transferred for better protection to the enclosed portion of the first stack floor, is well under way and will probably be finished by Christmas.

The library hours have been somewhat lengthened during the year in response to the evident demand. The building is now open during term time, including the summer session, from 8:00 a.m. to 10:00 p.m. on week days, and from 9:00 a.m. to 5:00 p.m. on Sundays. Longer hours may be maintained during the week or two preceding the mid-year and final examinations, if it seems necessary. During vacation the library hours are 9.00 to 5.00 p.m. Monday to Friday inclusive, and 9.00 a.m. to 12.00 m. Saturday; closed Sundays and holidays.

Losses of books and the resumption of the fine system for late returns are discussed under the caption "Relations with Students".

Periodical Department.—The demand for an available record of periodicals and serials in the library resulted in the publication in July of *University of California Library Bulletin* No. 18, a "List of Serials in the University of California Library." This bulletin, the largest yet issued in this series, contains 266 pages and approximately 7,000 entries, embracing all serials in the library, with indication in the case of current titles, of whether they are received by purchase, exchange or gift. It is intended that the bulletin shall be one of the bases of a revision of the "Co-operative List of Periodical Literature in Libraries of Central California," the latest edition of which, issued in 1902, is now of little practical use. This project was outlined in a paper read before the California Library Association at the annual meeting at Santa Barbara in June, by Miss Edith M. Coulter of our staff, and received the informal approval of the heads of the two institutions chiefly concerned, the State Library and the library of Stanford University.

The nature of the work of the periodical department is not such as to justify the existence of the department as a separate entity; and when physical conditions permit, it will probably be advisable to shelve the periodicals in the reading room and to turn over the records and the handling of binding to the accessions department. Such concentration of similar functions should make for efficiency and economy of administration.

Departmental Libraries.—At the meeting of the Regents on May 13, it was voted to amend the standing orders of the Board as follows: "All books purchased for department libraries shall be catalogued by the Librarian as part of the general library, and the Librarian shall furthermore make an annual inspection of the departmental libraries with a view to checking off the existing books against the catalogue, and shall, furthermore, make annual report to the President concerning the general condition of such libraries".

In accordance with this order work was begun early in June, and at this date the following collections have been inspected: Physiology, Zoology, Agriculture, Chemistry, Pathology, and Architecture. A complete report will be made at a later date,

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when all of the departmental libraries have been covered; for the present it will suffice to say that three of those so far inspected are in good condition and efficiently managed, and are open to readers at definite hours and under proper supervision. All six have been catalogued and shelf-listed by the general library, and the entries appear in the public catalogue with proper notation as to the location of the books. The number of departmental books reported missing from these six collections amounts to 128; this does not include general library books lost while on deposit in these departments and listed earlier in the year. The work of inspection will be carried on as rapidly as conditions at the general library permit.

Library Staff.—The last report of the librarians advocated the adoption of a schedule of automatic salary increases for the library service. It is strongly recommended that this schedule be adopted. The annual increase proposed is not large; it would amount to less than 5 per cent if applied to the present salary roll of the library. It is probable that, on general averages, the cost of such a system would be less than that of an indefinite procedure under which, if increases are made less frequently, they would necessarily be larger, and under which changes on the staff would inevitably be more frequent. The loss in efficiency due to such changes is difficult to estimate in terms of dollars and cents, in a service in which experience counts for so much. A definite salary scale will tend to retain on the staff its well-trained and experienced members by assuring a future for satisfactory work, and at the same time to induce a maximum of effort by offering additional reward for especial merit.

The weekly staff meetings have grown from small beginnings into an important feature of the life of the library. Every Thursday morning the heads of departments and assistants in charge of special work meet with the librarians for one hour, each member of the conference in turn serving a two months' term first as secretary and later as chairman. Any member may propose subjects for discussion, or make announcements of general interest. Matters of policy and procedure are considered and cases of difference of opinion usually settled by majority

vote. Each department is kept in touch with the work of the others through these meetings; misunderstandings and friction are eliminated and smooth interplay of the various phases of the work of the library is assured. Mistakes are avoided through the exchange of opinion on matters at issue, and many knotty problems are settled by bringing to bear the combined experience of the members of the conference, which covers a fairly wide range within the library field. Suggestions for improvements in method or new lines of activity are freely discussed and frequently adopted. During the past year, for instance, the conference took action to promote the reading of professional literature by its members. A list was drawn up embracing the professional journals, the organs of the various library associations, the reports of the more important American libraries, the book-trade organs and such critical periodicals as the *Nation* and the *Athenaeum*; and these are now regularly circulated from the periodical department. Notices and reviews of worth-while books are checked, and later carded for ordering. The cards, according to the nature of the titles, are either sent to the departments for approval or are passed upon by a subcommittee of the Library Committee with a view to purchase from funds provided for books of general interest.

Library Building.—Two years ago, when the library was moved to the new building, the opinion was freely expressed that existing accommodations were ample and that no extension of the building would be needed for at least ten years. This has not proved to be the case. The rapid growth of the collection and the wholly unexpected increase in its use, as also the larger staff and the imminent question of the library school, involve problems of space which demand early attention. The reading room was originally furnished to accommodate 276 readers; it now accommodates 420 without meeting the demand, but there is space for no more tables. The main stack will house the accessions of perhaps two years more at the present rate of increase, but it is false economy to crowd a stack to its ultimate capacity; at least one-third of the shelf space should be left clear, to obviate the constant shifting of large masses of books in order

that new accessions may be shelved in their proper places. The administrative offices are now hopelessly congested; space originally designed to accommodate eight persons is now occupied by twenty, and to promote efficient administration should contain desk-room for several of the other assistants. The library school, which is now a recognized part of the Summer Session and which it is hoped may be established on a permanent basis in the near future, should be adequately housed and in close proximity to offices and reading room. The space on the ground floor now used as a library school room should be divided into seminar rooms, as the demand for more such rooms is constant and, in most cases, well grounded.

To meet these needs the following additions to and alterations in the library building, in order of urgency, are recommended for early attention:

1. Enclosure of 30 feet to south of present administrative offices, with rearrangement of partitions and plumbing as shown in sketch plans now on file with the librarians, giving two rooms approximately 30 x 30 and 30 x 60 feet south from associate librarian's office, for accessions and catalogue departments respectively; and extension of present corridor through present office of the librarian, communicating with large elevator.

2. Enclosure of space east of delivery hall and stack, running south from reading room not less than 160 feet, and communicating with reading room; suitable wall shelving, tables and chairs to be provided.

3. Construction of four additional stack floors on present foundation, as provided in original plans.

4. Enclosure of space south from office extension (1) to south wall of building, approximately 90 feet, divided into study room, recitation room and office, for library school.

5. Seminar rooms of varying sizes south from reading-room extension (2) to south wall of building.

Relations with Students.—In the report of the librarians for 1910-12 mention was made of the difficulty experienced in procuring prompt return of books drawn by students for use at home, and the opinion was expressed that it might be necessary

to resort again to a system of fines for late returns. In the fall semester of last year the trouble reached such proportions that in January, 1913, a system of graduated fines was introduced. The fine is made large—25 cents, 50 cents, and \$1 per volume, according to the length of time—in order that it shall conserve its true character as a deterrent, and not be regarded as a license fee. The result is shown in the following table of recall notices sent out in corresponding months under the two systems:

1912								
	Jan.	Feb.	Mar.	April	May(1-24)	June	July	Total
1st notice	260	814	865	904	371	*	260	3474
2nd notice	80	182	211	228	188	*	42	931
3rd notice	59	22	43	51	39	*	7	221
Total	399	1018	1119	1183	598		309	4626

1913								
	Jan.	Feb.	Mar.	April	May	June	July	Total
1st notice	206	439	408	416	129	4	144	1746
2nd notice	35	23	30	33	12	0	13	146
3rd notice	24	1	21	13	5	0	3	67
Totals	265	263	459	462	146	4	160	1959

It is unfortunate that a system so thoroughly objectionable in theory seems to be the only one that works in practice. Fines are collected through the business office, no money being received at the library, and are credited to the general funds of the University. The library derives no pecuniary benefit from this source.

Losses of books from the main library since the close of 1911 are as follows, nearly all of them having disappeared from the reserve shelves in the reading room:

2d half-year 1911-12	Summer Session 1912	1st half-year 1912-13	2nd half-year 1912-13	Summer Session 1913	Total
50 v.	30 v.	66 v.	70 v.	12 v.	228 v.

As the books which disappear are usually in considerable demand, provision should be made for their prompt replacement. The present procedure is for the library to report losses at the end of each semester to the instructors by whom the missing

books are reserved; usually the matter ends there. One reason for this is, that under the system of lapsing appropriations many departments find it advisable to expend their book allotments in the first half-year and are without means to replace losses in January; still less in May. To meet this difficulty, it is recommended that the librarians be authorized to draw upon the general funds of the University to an amount not to exceed the receipts from library fines, for the purpose of replacing lost books.

In this connection it is pleasant to acknowledge the cordial assistance received from the Students' Welfare Committee in the attempt to minimize the trouble caused to students by the unauthorized removal of reserved books from the reading room. At intervals during the past year losses were reported to the committee, which not only advertised the facts in the *Daily Californian*, but took up each case with the instructor by whom the missing book had been reserved, requesting him to bring the matter before his class. In the nature of things it is impossible to gauge the effectiveness of this plan, but it is certain that some of the books reported as missing were later returned to the library.

Library School.—The summer course in library methods has completed a second successful session. It was this year in charge of Miss Helen Sutliff, chief cataloguer in the Stanford University Library, with Miss Glyde Maynard as assistant and Miss Edith M. Coulter and Sydney B. Mitchell of our staff as instructors in reference work and in bibliography respectively. The registered students numbered twenty-six, of whom twenty-two were actually engaged in library work; one from Washington and the rest from various points in this state. One graduate (1913) and two undergraduates of the University, and one Stanford student, who intend to enter library work, made up the total. Several members of the University Library staff and an assistant in the Bancroft Library pursued partial courses. One member of the class has since received appointment to the newly created position of librarian of the Oakland Manual Training High School, and three—Miss Cora R. Brandt, Miss Alice E. Ramsey, and Hubert G. Baugh—have joined the staff of the University Library. The course in library methods has become a recognized feature of the Summer Session.

It is becoming increasingly evident, however, that a course of six weeks in the summer is a very unsatisfactory substitute for the permanent school which is needed in connection with the regular session. Inquiries are constantly received at the library whether the University does not offer, or does not propose to offer, such a course; and during one day of registration three entering students visited the library to inquire how they should shape their courses so as to enter the library school eventually. The demand is widespread and is increasing, and ought to be met without avoidable delay. It is therefore urgently recommended that at as early a date as possible the plan outlined below be accepted as that of a course to be given in the college year 1913-14. Time is needed for the working out of details which will be more or less dependent upon the terms on which the course is admitted to the curriculum, for securing instructors and necessary equipment, and for advertising the course. The plan outlined is that submitted to you on January 25, and transmitted with your recommendations to the Board of Regents at its meeting on June 3, but which failed of securing the necessary appropriation because of lack of funds:

“The course shall continue through one academic year, with sixteen hours of instruction per week and about twice that amount of problem and practice work. All candidates for admission to the Library School must meet the entrance requirements in Group 1; from the successful matriculants the faculty of the school shall select the best qualified up to the number of thirty. Subjects completed in the Library School shall count for credit toward a University degree if desired, thus permitting academic students taking the library course to enter upon library work immediately upon graduation. . . . Tuition fees for students in the Library School shall be the same as for other undergraduates”.

Respectfully submitted,

J. C. ROWELL,
Librarian.

HAROLD L. LEUPP,
Associate Librarian.

LICK ASTRONOMICAL DEPARTMENT
(LICK OBSERVATORY)

MOUNT HAMILTON, July 1, 1913.

To the President of the University,

SIR: I have the honor to submit herewith my annual report for the period July 1, 1912, to July 1, 1913.

The most serious problem confronting us is that of finding ways and means for publishing the results of our more extensive investigations. The financial difficulties connected with this problem have been very real during the past seven years, and they seem still to exist. For twenty-five years it has been our policy to depend upon the State Printing Office, on the basis of legislative appropriations. The facts are that during five of the thirteen years constituting my administration there have been absolutely no funds for us in the State Printing Office, and that during the other eight years these funds have been very limited in amount. To illustrate, there were no funds at all during the academic years 1908-11; and the small appropriation made by the Legislature for the period 1911-13 has been devoted exclusively to advancing Volume VII, of the *Publications of the Lick Observatory*, which contains papers by members of the Berkeley Astronomical Department, in continuation of the first three parts of the volume printed in 1902—the delay in completing the volume being due to lack of funds from that date to this. Progress on Volume VII during the past two years has been slow and intermittent, and there is apparently no reliable method of determining when the volume will be completed. The constant hope that printing funds would soon be available in Sacramento has led to inaction in searching for other sources of funds. The result is that a large accumulation of important data awaits

publication. Astronomers quite generally are impatient to see them in print, and do not understand the reasons for delay.

Provision should be made for completing Volume VII described above. The reproductions of Professor Barnard's photographs of the Milky Way and comets, in the form of printed sheets of illustrations, and the manuscript to compose a volume of *Publications of the Lick Observatory*, have been in the State Printer's hands for many months. He estimates the cost of issuing the volume at \$3000. My report of last year referred to the desirability of publishing about 100 photographs of Halley's comet, and likewise the principal solar eclipse photographs obtained by our expeditions in the years 1893, 1898, 1900, 1901, 1905, and 1908, in order that volumes containing these as illustrations may receive their final preparation and be published. The cost of reproducing the two series of photographs cannot be estimated accurately, but it will approximate \$3000.

Dr. Aitken has completed the manuscript for a quarto volume to contain the observations and studies of the more interesting visual double stars which he has made during the past seventeen years. This work stands in a class by itself, and I hope that publication may be prompt.

The results secured by the D. O. Mills Expedition to the Southern Hemisphere during the period 1903-06 were issued as Volume IX, *Publications of the Lick Observatory*, in 1911, thanks principally to a private gift from Mrs. Hearst for this purpose. The observations secured since 1906, and similar observations obtained with the Mills spectrograph connected to the 36-inch refractor at Mount Hamilton since the year 1896, await publication. After condensing as far as permissible, they will probably demand the capacity of two quarto volumes. The requests of astronomers elsewhere for these results were so numerous and pressing that it was decided not to withhold them for publication in final form. The mean results for the observed radial velocities of the Class A and the Class B stars, comprising about 400 stars, were published in *Lick Observatory Bulletins* two years ago. The mean radial velocities of about nine hundred stars, comprising the brighter Class F, Class G, Class K, and Class M spectra, are

in press as *Lick Observatory Bulletin* 229. These abbreviated publications will make available to other astronomers the mean velocities of all stars observed spectrographically on Mount Hamilton and at Santiago, Chile, excepting one class of stars whose variable velocities have not yet been sufficiently investigated, and another class of stars whose spectra contain lines of such poor quality that the measures, with our high dispersion spectrographs, cannot be made to a satisfactory degree of accuracy. However, the necessity for publishing the detailed results still exists.

The increased costs of printing have rendered the annual appropriation for issuing the *Lick Observatory Bulletin* inadequate. For several years it has been necessary to supplement the appropriations with funds taken from our ordinary maintenance budget. A large deficit existed in this fund throughout the whole of the last academic year, and consequently the issuing of bulletins was reduced to a minimum. Only twelve short bulletins, totaling 35 printed quarto pages, were issued within the year, and six of these bulletins contained papers by members of the Berkeley Astronomical Department. It is hoped that the large number of important articles now in manuscript may be published promptly as bulletins, on the basis of the appropriation available for the next academic year.

It seems from the foregoing paragraphs that serious efforts should be made to secure a satisfactory solution of our publication problems. If we cannot depend upon the State Printing Office, it is hoped that this fact may be determined once for all, and that a definite printing policy may be adopted.

The replacement of residence space destroyed by the severe earthquake of July 1, 1911, was made during the current academic year. The new three-story concrete dormitory and one of the frame cottages are ready for occupation, and but little remains undone on the second frame cottage. The construction plans had been formed with a view to economy; for example, the salvage lumber from the destroyed brick residence and the new lumber required in the concrete forms for the dormitory were just sufficient to supply the framing, sheathing, and rough flooring for the two cottages.

Construction on the mountain, which previously involved many serious difficulties, was in this case rendered comparatively easy by the services of a motor truck. All building materials were here when needed, and on this account alone the usual high costs of construction on the summit were reduced. On the basis of the lowest horse-freighting bid offered, the motor truck effected savings so rapidly that the purchase price of the truck was fully repaid several weeks before the completion of the service.

At the close of the heavy freighting service, the truck was dissected for examination and repairs. The expenditure of \$150 made it as good as new, in so far as could be observed. The truck is utilized in the current freighting of the Observatory, making two or three trips per month to San Jose.

Repairs of all damages caused by the three severe earthquakes of 1903, 1906, and 1911 have been completed except as to the front entrance of the main Observatory building, and as to some of the brick reservoirs. The front entrance was badly cracked by the disturbance of 1903, and repairs were made at that time. Subsequent shocks in 1906 and 1911 reopened the cracks, and temporary repairs were called for. The time will come when the entrance must be torn down and replaced. Some of the other walls of the main building should be reconstructed at the same time, for they are of poor quality brick, laid in poor quality mortar. They are exceedingly porous, and the frosts of winter blister them, so that repointing of the mortar joints and repainting of the walls must be undertaken every two or three years. The walls should be replaced not only on account of their weakness, but as a matter of maintenance economy.

The brick reservoirs, some of which have suffered frequent damages of serious nature, have been repaired from time to time, and they are serving their purpose fairly well. However, they call for annual repairs; further damages may leave a serious water situation, and the more important ones should be replaced by steel tanks.

The shortage in rainfall during the season 1911-12 and apparent damage to the principal spring by the earthquake of 1911 created a serious water famine in 1912. It was necessary

to make hurried purchase and installation of two additional pumps, and to operate the water system on a different and less economical basis. The rainfall in 1912-13 was less than two-thirds the normal, and the output of the spring at the present time is lower than it has been at the same date in any year of the last fifteen. Whether the spring has suffered permanent injury cannot be determined until the lapse of a dry season following a year of normal rainfall.

Partly to avoid interruptions to the electric lighting and power service from the severe storms of winter, and partly to improve the appearance of the Observatory surroundings, the overhead power lines, running easterly from the switchboard, were replaced late in 1912 by underground lines. The Standard Underground Cable Company and the Pacific Gas and Electric Company gave valued assistance in the installation of the underground system. Similar arrangements have been made for the undergrounding of the upper section of the telephone and telegraph lines, which run from the main building westerly to San Jose.

The cold spell of January, 1913, which so seriously damaged agricultural interests in Southern California, was by far the most severe in the history of the Observatory. Pipes were frozen in all the buildings, and the fire-protection pipe extending from the reservoir on East Peak to the vicinity of the Observatory buildings, although some sixteen inches under the surface of the ground, was frozen solid and broken at many points. Repairs were made as promptly as possible, but we were without adequate fire protection during two weeks. The minimum temperature on two successive nights was $+11.5^{\circ}$ Fahrenheit, and the frost was made irresistible by simultaneous winds approximating fifty miles an hour.

In this connection, I should call attention to the fact that all of the scientific buildings, shops, and residences are heated by stoves in nearly every room. This is not only dangerous as a fire risk, but the plan is not economical. It was my purpose, two years ago, to request an appropriation from the Legislature to provide central heating systems for all the buildings, but the

sudden necessity for earthquake repair expenditures made a postponement of the heating plans necessary. A competent engineer should be employed in 1914 to make plans and estimates for such heating systems, in order that an appropriation may be asked for in January, 1915. The two recently constructed concrete buildings were piped for hot-water heating systems.

The Martin Kellogg Fellowship has been fruitful of results. In continuation of researches made during the preceding year, Dr. Keivin Burns, the holder of the fellowship, devoted the first three months of this year to work on the spectrum of iron under Professor Kayser at Bonn, and the last nine months to the accurate determination of standard iron-line wave-lengths, by means of the interferometer, in the laboratory of Professors Fabry and Buisson at Marseilles. The results secured in the two years of the fellowship have been published in German, French, and American journals. Dr. Burns has recently accepted appointment to an important position on the staff of the Bureau of Standards in Washington.

The efficiency of the D. O. Mills Expedition has continued undiminished. The observations of the past year, numbering about 600, consist principally of spectrum photographs of stars between visual magnitude 5.0 and 5.5, but much attention has been devoted to determining the motions of southern nebulae in the line of sight. The spectrograms are measured and definitively reduced to date. The strain of the life and work at Santiago is severe upon the observers. They live in the city of Santiago, and the night work in the Observatory requires that they make daily ascents and descents of the mountain, whose summit is about one thousand feet above the city level. On this account, Dr. Moore, in charge of the Expedition, felt that it would be unwise for him to remain in Santiago during the fifth year of his term, and he asked to be relieved. An interchange of officers is now taking place. Dr. Ralph E. Wilson, during the past two years an assistant at Mount Hamilton, was appointed Assistant Astronomer, in charge of the D. O. Mills Expedition. He sailed from San Francisco on June 25th. Dr. Moore will leave Santiago about the middle of August, to serve at Mount Hamilton as Assistant Astronomer.

The extremely rapid growth of the city of Santiago during the decade of our activity there has made increasingly difficult the securing of a suitable residence for the astronomer in charge. The problem is analogous to that of finding a suitable house in a given quarter of a large European city, as it is necessary that the Santiago residence be near the foot of the mountain. For many reasons it is desirable that the Expedition plan to build or purchase a suitably located residence.

The fruits of the Expedition have been exceedingly rich, not only on their own account, but principally by virtue of the fact that the observations of the southern stars must be available before we can hope to extract full values from the northern observations of the same kind. Stated generally, the solution of the great problems of the stellar system require that the observational data extend over the entire sky. There exists among astronomers of all countries a definite and strong hope that the D. O. Mills Expedition may be placed upon a permanent basis.

While the performance of all parts of the Crossley reflector itself is excellent, it occurs in certain positions of the telescope that the observers become unduly fatigued in the making of long exposures, because of limitations imposed by the hand-operated moving chairs. It has been decided to install improvements in the late summer of 1913 such that the observer may place and maintain himself in a comfortable position and control the operation of the observing chair and telescope itself very largely through the medium of electric motors. The proposed improvements include: An elevating observer's platform, about four by ten feet, to be raised and lowered by an electric motor on a structural iron frame attached to the dome; electric clamps in right ascension; electric slow motion in right ascension; an automatic electric gear shifter, operating in conjunction with the electric clamps, so designed as to make the action of the driving clock and sectors entirely automatic. The electric controllers for the dome and platform motors will be mounted on the observing platform; the clamps and slow motions will be accessible from the eye end of the telescope; and the manipulations of the driving mechanism will require no further attention from the observer during the progress of an exposure.

The great advantages of a reflecting telescope in certain lines of investigation were brought forcibly to the front by Director Keeler's work with the Crossley reflector. His success made it the ambition of many observatories to possess large reflectors, and the subject has developed rapidly since Keeler's day. For several years the Crossley reflector was the most powerful instrument of its kind engaged in systematic research, but it is now surpassed in size by many reflectors, some in use and others in process of construction, in this and other countries. A 42-inch and a 60-inch reflector are in continuous operation. A 48-inch, a 60-inch, a 72-inch, and a 100-inch reflector are under construction. Plans are on foot to provide reflectors, from 40 to 50 inches in diameter, for still other institutions. The 36-inch Crossley reflector and the 37-inch D. O. Mills reflector must soon be ranked among the smaller instruments of their class. Astronomers are planning to extend to the fainter stars, by means of the more powerful instruments, those programmes of observation which have hitherto been made on the brighter stars with 36-inch and smaller instruments, and no one can question the wisdom of these plans. The time has come to consider seriously the acquisition of a reflecting telescope for the Lick Observatory which shall compare favorably in power with the largest instruments. The cost would be considerable, but, in view of the great and rapidly growing wealth of the State of California, we should not hesitate to ask that the equipment of the Lick Observatory be maintained on a par with that of other observatories.

A total eclipse of the sun will occur in Europe on the afternoon of August 21, 1914, under favorable astronomical and atmospheric conditions. In continuation of the extensive observations secured at the favorable eclipses occurring since the opening of the Lick Observatory in 1888, Regent William H. Crocker has been pleased to give the sum of \$5,500 to defray the expenses of an expedition from the Lick Observatory to observe the eclipse of 1914. Since the date of the last eclipse observed by us, January, 1908, four total eclipses of the sun have occurred, and various institutions have dispatched expeditions to observe them. The conditions at each of the four eclipses were so unpromising that

it seemed unwise for us to devote time and money to them. The sequel has shown, in each of the four eclipses, that this decision was a wise one.

The elevating floor in the dome of the 36-inch refractor, designed and constructed nearly thirty years ago, has been an exceedingly useful part of the equipment. It was the first of its kind, and most large telescopes erected subsequently have been provided with elevating floors. Ours was designed before the days of applying electric motors to such movements, and is operated by water power, whereas floors of later construction are operated by electricity. Experience has shown that hydraulic machinery applied to this and similar purposes must be kept in perfect adjustment, at the price of frequent attention, and that the motion is slow and the system not economical. Our floor has been operated throughout every good night of more than twenty-five years. The natural wear and tear are making attention to the mechanism and adjustments increasingly necessary. The safety-governing system, which controls the rams for the purpose of maintaining the floor in a level position, is becoming defective, and frequently one side of the floor drops to a position six or eight inches below that of the opposite side. In time this defect will become dangerous to the telescope itself. Similar floors in other observatories are operated safely, simply, and economically by electric motors. Plans for applying electric motive power to our floor should be made by a competent engineer in the year 1914, in order that an appropriation may be asked for in 1915 to cover the cost of the alterations.

There are several minor pieces of apparatus which are urgently needed in the daily work of the Observatory. Most of these needs have been really pressing for several years, but difficult finances have prevented purchase. The principal items are as follows:

1. Zeiss stereocomparator, cost \$1250. The leading observatories engaging in astronomical photography are almost without exception in possession of a copy of this instrument. Its principal purpose is to afford a direct, accurate, and quick method of comparing two photographs of the same object or of the same region of sky, taken at different times, in order to determine

whether changes in the object, or in any of the objects, recorded in the photographs, have occurred in the interval.

2. A recording micrometer eye-piece for the Repsold Meridian Circle, cost \$750. It is not overstating the case to say that all up-to-date meridian circle instruments are either equipped with micrometers of this form or arrangements are under way to provide the equipment. All meridian observations made with the older forms of eye-piece leave the observations affected with troublesome personal (unavoidable) errors of observations. It has been found that the recording micrometer leaves the observations substantially free from these troublesome errors.

3. A special lens for out-of-focus photography of stars, to assist in the study of variable stars, cost about \$300. It has been found that some variable stars reach their maximum or minimum brilliancy at different times, depending upon whether the observer is measuring their brightness by means of the red, orange, and yellow rays, or by means of the blue and violet rays. The problem of explaining this discrepancy is calling strongly for solution. Is the phenomenon due to conditions existing in the stars as light sources, or are we dealing with a fundamental question relating to the transmission of light waves through interstellar space? If the latter condition is existent, the foundation of observational astronomy is affected. The lens is needed in order that we may undertake moderate contributions to the problem.

4. Applications of the photo-electric cell by physicists, and especially by Koch of Munich, give promise that instruments utilizing this cell as a basis may revolutionize the study of variable stars. There are indications that photo-electric photometers may possess powers so far beyond those of existing photometers that the latter will be entirely superseded, except perhaps in special cases. If the indications are correct, the instrument may prove the most important addition to the astronomer's tools since the invention of the spectroscope and the photographic dry plate. The Lick Observatory should secure a photo-electric photometer at the earliest moment, in order that the energies which we are devoting to the important study of variable stars

may be made as fruitful as possible. The expense is uncertain, but it will probably be between \$600 and \$1000.

The items just described involve expenses which cannot be considered in connection with the budget provided for the ordinary maintenance expenses of the Observatory.

The Hearst seismographic instruments have recorded accurately a large number of weak earthquake shocks in the year. The records have been forwarded each month to the Geological Department of the University for study.

The work of the Meridian Department, in charge of Mr. Tucker, during the past year has consisted principally in the methodical reductions of the fundamental observations of star positions made in earlier years. One important result of the discussions seems well established: The atmospheric refraction for stars observed on the meridian appears to be a function of the position of the sun east or west of the meridian. The daylight and night refractions are different in value, even after due allowance is made for the readings of the thermometers and barometer. The nature of the apparent influence of the sun is not clear, but it may be that the indications of the thermometer near the instrument, that is, near the earth's surface, are not representative of changes occurring in our atmosphere in the strata overlying the observer's position. Again, this may be an effect existing or noticeable on the summit of a mountain, and not be appreciable for an observatory located on a plain or in fairly level surroundings.

During the year, about 250 determinations of position have been made for stars which have been utilized here and elsewhere in the observation of comets, asteroids, etc.

The Riefler constant-pressure clock, which had been dismounted and injured by the earthquake of 1911, has finally been enclosed in a case whose upper small section is of glass and whose lower large section is of copper. There is now no difficulty in maintaining constant atmospheric pressure within the case, save as this pressure is affected by the slight temperature variation in the clock room. The clock room consists of a small room with masonry walls inside the large basement of the meridian house

where temperature changes are small and slow. No further attempt has been made to control the temperature factor, as a more perfect control seems superfluous in meeting the present requirements of the clock.

Before entering upon a large programme of observations with the Meridian Circle, it is hoped that this instrument will be equipped with a registering micrometer, referred to in a preceding article.

Dr. Aitken's work on double stars has continued to be fruitful. Within the year he has discovered 149 new pairs of double stars, carrying his total number of discoveries beyond 2600, and he has measured the position angles and distances in 640 pairs. His search for new doubles has extended his survey over 600 additional square degrees. There remain unsurveyed about 700 square degrees north of the equator, and about 120 square degrees between the equator and 14° south declination. If weather conditions during the coming winter and spring are average, the survey of these areas can be completed by June, 1914. This Lick Observatory double-star survey (all of whose essential features were originated by Dr. Aitken in April, 1899), should be extended over the neglected southern hemisphere of the sky, by means of a suitable expedition—a desideratum to which all astronomers cordially assent. It may or may not be the duty of a state to dispatch scientific expeditions beyond its borders, but I am hoping that it will be possible to secure joint contributions from five or ten friends of the Observatory, during five or six years, in order that Dr. Aitken may carry out this useful investigation.

Reference was made in a preceding paragraph to the completion of the manuscript for a volume of Dr. Aitken's double-star measures and studies. This work includes accurate measures of 1199 double-star systems, made in the years 1895–1912 inclusive. The observing list in these years consisted very largely of those binary systems which, by reason of the small angular separations of their components or of their great differences in brightness, are difficult or impossible to observe under conditions less favorable than those existing at Mount Hamilton. It included all of the pairs visible from this latitude known to have short revolution

periods, and ninety-three pairs whose orbits have been computed. These systems were observed regularly at such intervals as seemed desirable, many of them annually, and in some special cases several times within a year. All doubles whose periods of revolution are less than fifteen years have been followed throughout one or more revolutions; others of longer period have been measured over orbit arcs exceeding 90° ; and special efforts have been made to obtain observations at critical points in the orbits. Investigation of accidental and systematic errors in measurement show that both kinds of errors are small. New orbits have been computed for twenty-five pairs. Eight of these were referred to in my last report, and the other seventeen are as follows:

	Period	Eccentricity
δ Equulei	5.70 yrs.	0.39
13 Ceti	6.88	0.72
A 88	12.12	0.27
ζ Sagittarii	12.17	0.18
β Delphini	26.79	0.35
β 1270	32.50	0.42
20 Persei	33.33	0.60
β 1266	36.00	0.24
β 794	42.00	0.50
μ^1 Herculis	43.23	0.20
ξ Scorpii	44.70	0.75
Σ 2173	46.00	0.18
τ Cygni	47.00	0.22
99 Herculis	63.00	0.76
π^2 Ursae Minoris	115.0	0.80
4 Aquarii	135.6	0.35
Σ 2026	163.3	0.66

The orbits of A88, β 1270, β 1266, and β 794 are the first ones computed for them. It is interesting to note that our knowledge of pair A88 is due exclusively to Dr. Aitken: it was discovered by him, it has apparently not been seen by other observers, and the orbit is his. The pair is difficult of observation.

Micrometer observations of comet positions have been made as follows:

Comet a1912 (Gale):

7 by Dr. Aitken

11 by Mr. Pitman

Comet b1912 (Schaumasse-Tuttle):

4 by Dr. Aitken

1 by Mr. Pitman

Comet c1912 (Borrelly):

3 by Dr. Aitken

6 by Mr. Pitman

Comet a1913 (Schaumasse):

6 by Dr. Aitken

5 by Mr. Pitman

1 by Mr. Merrill

Mr. Wright has continued throughout the year his excellent series of observations on the spectrum of Nova Geminorum No. 2, referred to in my preceding report. Thirty-two additional spectrograms have been obtained in the interval, with five different spectrographs. They cover the spectrum from 3300A to 6700A. Thirty of the seventy-three photographs of this spectrum have been measured and definitely reduced. Twenty-six half-tone reproductions of the spectra have been prepared. It is hoped that an extensive paper on the subject may be published in the late summer of 1913.

Mr. Wright is further engaged in securing a fairly complete series of photographs of typical stellar spectra; that is, of a great variety of spectral classes. The photographs obtained cover the entire region from the ultra-violet, as observed with a quartz spectrograph attached to the Crossley Reflector, down through the so-called photographic and visual regions to the wave-length 7000A. Seventy-five spectrograms have been secured to date. It is intended that these photographs shall illustrate the diversity and range of spectral type, and form a useful contribution to the study of spectral classification.

Another important research conducted by Mr. Wright, as he finds observing opportunity, is for the purpose of improving our knowledge of wave-lengths in nebular spectra. This work has

led to the discovery of many additional bright lines in the spectra of the brighter nebulae. The dispersive power selected for the observations is various, depending upon the brightness of the spectral lines involved, in order that the wave-length determinations may have a comparatively high order of accuracy.

The Crossley Reflector is in almost constant use for a great variety of purposes, but its principal employment in the past year has concerned Dr. Curtis's photographic survey of the more interesting nebulae and star clusters, very few of which have hitherto been photographed. *Lick Observatory Bulletin* No. 219 contains descriptions of 132 nebulae and clusters, of which 36 were photographed by Director Keeler and not described in print; 54 were photographed by Dr. Curtis; and 42 were photographed by Dr. Perrine and others. Dr. Curtis has photographed 86 additional nebulae within the current year, many of which are of unusual interest. Descriptions of these and others will soon be published as a second list. The observing programme is made up of the larger and brighter objects listed in Dreyer's New General Catalogue. The descriptions based upon the early visual observations are of little value in comparison with photographic records. Photographic records of the nebulae should be made as numerous and on as large a scale as possible, for it is to these records that future students of the nebulae will go as a starting-point in their research for motions and other changes occurring within these bodies. It is now about fourteen years since Director Keeler's epoch-making photographs of nebulae were obtained, and it is desirable that many of these observations be repeated and that the records be compared for evidence of internal motion.

The great preponderance of spiral nebulae, in harmony with Keeler's discovery, becomes more and more striking with the progress of this survey. Dr. Curtis finds that the published descriptions of nebulae based upon the old visual observations, which read "very much brighter at middle," "very gradually very much brighter at middle," etc., are almost without exception well-defined spirals. Unanimity is so close that one could not go far wrong in considering the objects with such catalogue descriptions as spirals, even though not hitherto photographed.

In the progress of this survey, large numbers of small, faint nebulae continue to be discovered. Sometimes there will be 30 or 40 such unknown objects in the small area of a Crossley plate. It is evident that we have merely made a beginning in the study of the nebulae.

Other photographs secured with the Crossley Reflector, by Dr. Curtis unless otherwise specified, are: 5 of new and variable stars; 4 of Gale's comet; 7 of Saturn's satellites; 28 of regions of the sky possessing special interest, either temporary or permanent; 16 of the ring nebula in Lyra, to assist Dr. Newkirk, of the University of Minnesota, in determining the parallax of this body; 18 of Jupiter's satellites VII and VIII, by Messrs. Meyer and Morehouse, for determining the accurate positions of these bodies; and 26 plates in search of the asteroid 1911 MT.

The orbit of asteroid 1911 MT, as determined by Professor Leuschner and his assistants, notably Assistant Haynes, promised to be unusually interesting, and it seemed desirable that special efforts should be made at Lick Observatory to find this body at its opposition in April, 1913. Nearly all the time of the Crossley Reflector during two successive dark periods of the moon was devoted to this end. Three excessively faint asteroids were discovered, and observed several times each. Orbits were computed for these at the Students' Observatory, but none of the three proved to be the object sought. The quick discovery of three new asteroids throws an interesting light on the great number of faint bodies in the asteroid belt which are easily discoverable by the Crossley Reflector.

Extensive measurements and least-squares calculations have been made by Dr. Curtis on the positions of the coronal streamers near the north and south poles of the sun, as photographed by the Crocker eclipse expeditions to India in 1898, to Georgia in 1900, and to Sumatra in 1901, to determine whether the poles of rotation of the sun and the apparent poles of the coronal structure occupy the same positions. The agreement is close and the small divergences observed should possibly be ascribed to the effects on the measures of the lack of perfect symmetry in the polar coronal streamers, rather than to actual differences in the positions of the coronal and solar poles.

A preceding paragraph refers to the work of the D. O. Mills Expedition in determining the radial motions of stars and nebulae. Similar investigations at Mount Hamilton have been extensive during the year, but their character has been extremely varied. Only a few scores of these observations relate to radial velocities of the brighter stars, upon what we may call the great programme which has engaged our attention during a long term of years. This programme has been completed down to the fifth visual magnitude, including several scores fainter than the fifth magnitude, but not including stars whose spectra are too poor for accurate measurement with high dispersion, nor a large number of stars whose velocities vary.

The spectrograms of the past year have been secured principally with the low dispersion of a 1-prism instrument. Mr. C. C. Kiess, Fellow in the Observatory, studied the spectrum of the cluster variable RR Lyrae. This is the brightest known member of the large class of cluster variables, and it seemed desirable to throw as much light as possible upon the nature and causes of their variations. Mr. Kiess found that the radial velocity of this star is variable through a wide range of values and in a period of time exactly equal to the period of its light curve. Evidently this star, like nearly all other stars of perfectly definite period whose radial velocities have been studied, is a binary system, and the variation in brightness is caused principally, and perhaps entirely, by the influence of the invisible member of the binary system. This cluster variable is brightest when the brighter member of the binary system is approaching the observer, and faintest when it is receding from the observer; and there is no evidence that an eclipse effect exists. These conclusions are in agreement with those reached here in the study of many variable stars belonging to the Cepheid and Geminid classes. The investigation, forming the basis of Mr. Kiess's thesis for the degree of Doctor of Philosophy, lends strong support to the view that cluster variables are double stars whose components are separated by very small distances.

Mr. P. W. Merrill, Fellow in Astronomy, secured between 100 and 200 spectrograms of that interesting class of stars whose

spectra contain both bright and dark hydrogen lines. Many of these stars had been studied at the Lick Observatory in the days when spectrum photography was new and necessarily confined to the blue and violet regions. Mr. Merrill's observations, with greatly improved spectrographs, taking advantage of our recently acquired ability to photograph in the green, orange, yellow, and red regions, has added extensively to our knowledge of these spectra. Brief examinations of stars known to belong to the earlier spectral classes led him to the discovery of several additional stars which contain bright and dark hydrogen lines. The most probable conclusion drawn by Mr. Merrill is that the complicated phenomena observed are the results of self-reversal in the atmospheres of the stars. In the case of Phi Persei, it was found that the principal bright lines present are the same in position as the principal bright lines of the spectrum in the sun's chromosphere. Mr. Merrill's study formed the basis of a thesis leading to the degree of Doctor of Philosophy.

Miss E. Phoebe Waterman, Vassar College Fellow, resided at the Lick Observatory throughout the academic year. She engaged principally in a study of the green, yellow, orange, and red spectral regions of the brighter Class A stars, for the purpose of testing the Harvard system of spectral classification in the Class A section. The Harvard investigations have been based exclusively upon photographs confined to the blue and violet regions. It was the published opinion of many spectroscopists that the classification should be tested by means of photographs covering the other regions in the spectrum, and especially for the Class A stars. Miss Waterman secured a large number of spectrograms with the 12-inch and 36-inch refractors for this purpose. Her studies of these photographs, constituting a thesis leading to the degree of Doctor of Philosophy, were confirmatory of the Harvard system.

The orbit of the spectroscopic binary star δ Tauri was computed by Dr. Wilson on the basis of thirty-one spectrograms obtained with the Mills spectrograph attached to the 36-inch refractor. The orbit of 113 Herculis was computed by Dr. Wilson from thirty similar spectrograms. The orbit of δ Cephei was com-

puted and thoroughly discussed by Dr. Moore on the basis of thirty-eight Mills spectrograms.

Dr. Paddock has determined the orbit of the spectroscopic binary v_4 Eridani, from observations secured at the D. O. Mills Observatory. The orbit is nearly circular, and the spectra of both components are observable. Dr. Paddock has developed and applied to the study of this star a set of equations which appear especially efficient in determining the value of the orbital eccentricity, when this element is small. The orbits of several additional spectroscopic binary systems are under investigation by various members of the staff.

Discoveries of eleven spectroscopic binary systems, made principally at the D. O. Mills Observatory, were announced in the year.

Former reports called attention to the discovery that the velocities of the stars are functions of their spectral classes, the average velocities being low for stars of early spectral class and relatively high for stars of the later spectral classes. The fact that the average velocity of the thirteen planetary nebulae observed by Keeler is greater than the average velocity for any of the stellar spectral classes, raised an important question as to the relations between stellar and nebular velocities. The importance of increasing the number of known nebular velocities was at once apparent. Observations of nebular spectra, to this end, are under way at Santiago and at Mount Hamilton. Results have thus far been obtained for several nebulae in both hemispheres, and we hope to secure a fairly long list of nebular velocities within the coming year.

An interesting question has existed since the year 1900 as to whether stars of small mass are traveling more rapidly than stars of relatively great mass. Our radial velocities published in former years afforded considerable support to an affirmative answer. During the past year we have studied the subject further, especially for about one hundred stars whose approximate distance are known, and the indications are moderately strong to the effect that the average velocities of stars increase slightly with decreasing masses. The subject is made difficult by the meager-

ness of our knowledge concerning stellar distances, as this limits our ability to determine the probable masses of the stars in question, and our deductions are for the present to be considered merely as preliminary and not definite.

One of the most important fields of observation before astronomers comprises the radial velocity determinations of the stars fainter than the fifth visual magnitude, in extension of similar knowledge existing for the stars brighter than the fifth magnitude. Moderate extensions could be made with the high dispersion spectrographs employed on the brighter stars, but the exposures would be long, and the number of results obtained in a given time would be correspondingly small. A compromise plan, leading to a greater number of observations of lower accuracy, through the use of spectrographs with lower dispersion, is clearly the plan to adopt. It happens that 3-prism spectrographs readily assume a compact form and are accordingly easy of protection from temperature changes and differential flexure effects. The usual form of 2-prism or 1-prism spectrograph is far from compact, and the temperature and flexure factors are more difficult to control. The Littrow form of spectrograph is more promising from these points of view, though it has compensating disadvantages. A spectrograph of the latter form, for application to the fainter stars, has been under construction and test at the Lick Observatory during the past year. We are not ready to make a statement as to its efficiency.

Six lectures were delivered before the class in General Astronomy in the Berkeley Astronomical Department in the spring of 1912.

Director Campbell delivered a lecture in the University embodying the more important results of his investigations on the motions of the brighter stars, as determined from spectrographic observations secured with the Mills spectrograph attached to the 36-inch refractor at Mount Hamilton and by the D. O. Mills Expedition to the southern hemisphere.

Dr. Aitken is conducting the astronomical classes in the current Summer Session of the University.

The Silliman Lectures in Yale University, delivered by Director Campbell in 1910, have just been issued in volume form by the Yale University Press and the Oxford University Press.

Dr. Aitken was elected a foreign associate of the Royal Astronomical Society in London in 1913.

Director Campbell represented the University at the semi-centennial celebration of the founding of the National Academy of Sciences, in Washington.

The director acknowledges the continued cordial support of every member of the observatory staff, both at Mount Hamilton and at Santiago, Chile.

Respectfully submitted,

W. W. CAMPBELL,
Director of the Lick Observatory.

DEAN OF THE LOWER DIVISION
(ADVISOR)

BERKELEY, July 1, 1913.

To the President of the University,

SIR: In reporting to you on the work of the office which I have occupied during the past year, in the absence of Professor Hutchinson, I shall have to mention matters of detail in the administration rather than signalize any new movements, with sweeping change of policy.

At the opening of the year in August the enrollment had increased to such an extent that the thirty-three advisors were obliged to take charge of more new students than the ideal plan, as outlined in recent reports, would admit. Nevertheless I believe the work was reasonably well carried out, for most of the advisors were faithful to their responsibilities. It is perhaps true that the success of work of this type depends almost wholly on the personality of the men doing it. Those who have the right social instinct for it, coupled with enthusiasm and some perseverance, will succeed no matter what the system.

I have, however, ventured to institute a slight change in one particular in the work of the board of advisors, in order to meet the very just criticism that the relation between advisor and advisee has not been altogether natural. Hitherto the freshman has been assigned, even before his formal admission to the University, to some advisor, who has initiated him into the mysteries of study-list making and of other routine. Although this was a suitable and probably natural means of securing the first acquaintance, there was this serious defect in the further development of the plan that the student, who in the majority of instances

did not enroll in any classes with his advisor, would not have any absolute need of meeting him again. Students will this year be assisted in the preparation of their study-lists by members of the faculty detailed for that sole purpose. After the study-lists have been filed the distribution of the freshmen among the advisors will be made in such a way that as many freshmen as possible will have advisors who are at the same time their instructors. In this way advisor and student are bound to meet two or three times a week and a natural acquaintance formed which will be bound to last through the year or even longer.

In the preparation of a list of approved boarding-houses attention was given not only to general sanitary conditions but to fire danger. Approval was withheld in some cases because landlords had provided no adequate means of escape from upper stories. There are still a good many houses which do not ask for inspection, but which are believed to be altogether too dangerous in the point mentioned, although their patrons are drawn very largely from the student body. I believe that steps should at once be taken to secure the passage of ordinances by the local city council which would better safeguard the lives of the young people of the state while attending the University.

Relations with student organizations have been friendly, and much good has come through the spirit of co-operation and friendliness that has developed here. It is a great gain to be able to call upon such a representative body of men as the delegates to the fraternity and club conferences for opinions regarding the working of actual institutions already established among us and to be able to consult them in regard to proposed changes in administration. Scholarship is slowly but steadily improving in the fraternities and clubs, because more and more attention is being given by these organizations to securing about the house such conditions as will make for study.

Respectfully submitted,

OLIVER M. WASHBURN,

Dean of the Lower Division.

MEDICAL DEPARTMENT IN LOS ANGELES

LOS ANGELES, July 1, 1913.

To the President of the University,

SIR: I have the honor to submit the following report of the Los Angeles Medical Department of the University of California.

Since becoming a part of the University of California the Los Angeles Department of Medicine has completed its fourth year in June, 1913, when the degree of Doctor of Medicine was conferred upon four students who had successfully accomplished the course of study required for the last two, or clinical, years. A class of three students completed their junior year at this time, the preliminary requirements having been fulfilled at Berkeley.

The inevitable decrease in the number of students, as compared with former years, which was referred to with some detail in my last report to you, due to the increased preliminary requirements demanded of those entering upon their first year of medical work, is still in evidence. Yet this is not a matter for regret, when into consideration is taken the fact that by this very step the University of California has placed itself on equal footing with the highest standards of medical education in the country. Realizing the grave responsibilities he must undertake, and the high standards of social, moral, and intellectual attainment necessary to enable the young medical student to reach even the first step of the ladder to success, the most casual layman will acknowledge that the quality of its graduates, rather than mere numbers, must be the aim of a university, the object of which is to prepare men and women whose lives are to be devoted to the service of their fellows, and to the protection of the lives and health of those about them.

The opportunity afforded by the city of Los Angeles for the successful development of such a department is without parallel

on this continent. The growth of the city, during recent years, has astounded even the most enthusiastic believers in its future. The real need, therefore, for a separate Department of Medicine in the southern part of the state must be easily apparent for the following reasons :

1. There is already abundant clinical material in this city to warrant the University in maintaining a strong medical center, which material, naturally, could not be utilized for the purposes of medical education by a northern department. Los Angeles and its tributary towns have a very large Mexican population, which in itself supplies a constant succession of clinical cases, and which is very dependent, for the most part, upon charitable assistance when sickness enters its ranks. This Mexican element is one that is peculiar to the southern part of California, and is a factor that cannot be overlooked. With the opening of the Panama Canal there must inevitably follow an influx of foreigners of the class whose financial condition renders them dependent upon charitable or endowed institutions. This certainty of increased need for free treatment is an opportunity not always to be found by a medical school seeking material for study, and it cannot but act as a stimulus, if such be needed, to those who have the speedy development of this department at heart. The constantly increasing demands upon the Selwyn Emmett Graves Memorial Dispensary serve as a warning of what may be expected when the great steamship lines from Europe have easy access to a southern port, a problem which will confront the northern Department of Medicine in a similar way. Given sufficient facilities, the Los Angeles Department of Medicine can and will do vastly more than it is now enabled to do to meet the constantly increasing demands upon its resources.

2. The problem of medical education in California, on account of the extensive territory of the state and the topographical differences existing between the north and south, is greater than that presented by any other state.

3. A state university should set the medical standard for the whole state, which can be done only by a united effort from both the northern and southern parts of the state.

4. Each year brings to Southern California medical students from the East and other parts of the United States, who for reasons of health in their families, seek the climatic conditions in Southern California which cannot be found in the north.

5. A state university owes a duty to the young medical men with the best eastern university training, who become residents of Southern California, to give them opportunities and encouragement for their development which cannot be given except by a state university or a similarly endowed institution. Many young men come here from such a medical atmosphere, who can give help and force to a university medical department, and it seems just that they should have the right to further their medical development through the higher standards which only a university school can give. It is most logical that the state university should be the means of extending the necessary help to this end.

Several noteworthy improvements have been effected during this past year:

A. The frontage of the University property on Castelar street has been cleared, preliminary to the hoped-for erection of a hospital on this portion of the premises.

B. The work of the Dispensary has been extended into the main building, its previous quarters having been found insufficient for the increasing demands upon its accommodation.

C. A compact and efficient unit has been created out of a group of disconnected old buildings.

D. In the Dispensary, better facilities have been provided for the individual clinics. The larger clinics have been held daily instead of two or three times per week as previously; yet, notwithstanding this fact, the average daily attendance has increased.

E. A milk station is maintained in connection with the Dispensary by private subscriptions from members of the faculty, where modified milk is prepared in sterilized bottles and cases and supplied to needy mothers for their babies, 2,459 applicants having received assistance in this way from October 1 to June 1.

With the \$25,000 appropriated by the Legislature this year for this Los Angeles Department it is proposed that the following improvements be hurried to completion as rapidly as possible:

- A. The completion of the new hospital unit.
- B. Completion of repairs in old buildings.
- C. Equipment of new hospital unit and of dispensary.

The maintenance of a hospital for charitable or semi-charitable cases must depend upon an endowment raised through private subscription. All the beds in such a hospital should be available for teaching purposes, to render the hospital an efficient factor in the teaching of the clinical years of medical study, and it is hoped that the University may soon be in a position to put these clinical years on the same academic basis as our other departments.

Salaried instructors for teaching the several clinical subjects should be employed, a pathologist should be secured on such a salary as will permit of his devoting his entire time to the work, and sufficient clinical men to give at least half of their time to instruction. Where it is necessary to depend upon instructors who act without salary results are inevitably less satisfactory, no matter how willing and how earnest such instructors may be.

The out-patient attendance of this department has increased during the past year, and the doctors in charge of the clinics and the members of the faculty have been most faithful in their work and service. The number of patients treated by this department of the University exceeds 20,000 for the past year.

The department, including the library, which is open to the medical profession of Southern California, has been able to do this effective work only by means of extra subscriptions from the profession in the southern part of the state, amounting to \$2,859.76, \$600 of which will be given for an X-ray machine. During the past year it has been necessary for this amount to be subscribed over and above the appropriation by the University, in order to make the work and standards as effective as demonstrated up to the present time. Much is expected of the University for the future medical standards in Los Angeles, and it will have the co-operation of the profession and laymen here.

Respectfully submitted,

W. JARVIS BARLOW,
Dean.

MEDICAL DEPARTMENT IN SAN FRANCISCO

SAN FRANCISCO, July 1, 1913.

To the President of the University,

SIR: I have the honor to present the following report of the College of Medicine of the University.

The reorganization of the last two, or clinical, years has been alluded to in the report of 1912. Three chairs have been created, viz.: medicine, surgery, and gynecology and obstetrics, and the branches under them include pediatrics, neurology, dermatology, hygiene and preventive medicine, materia medica and pharmacy, orthopedics, laryngology, otology and rhinology, ophthalmology, and urology. The chair of obstetrics and gynecology has been filled by the appointment of Dr. J. Morris Slemons, formerly associate professor of obstetrics in Johns Hopkins Medical Department. Dr. Slemons will devote all of his time to the work. In his department Dr. Arthur H. Morse, formerly instructor in obstetrics in Johns Hopkins Medical Department, also will be a full-time instructor. As professor of pediatrics, Dr. William Palmer Lucas, formerly instructor in pediatrics in Harvard Medical School, has been appointed, and will shortly occupy the position as a full-time teacher. In the department of pathology at Berkeley, Dr. Karl Frederick Meyer has been added. He has held a similar position in the University of Pennsylvania.

These additions to the faculty will be important and valuable, as all these appointees are well known as teachers and investigators.

The interest manifested by the Regents of the University in developing the college of medicine has been a source of gratification to those who have endeavored to put it on a high standard

of efficiency. Without their active co-operation little could have been accomplished. There are now twenty-nine paid teachers in the departments in Berkeley and San Francisco, out of a total of fifty-nine.

The establishment of the George Williams Hooper Foundation for Medical Research is of the greatest importance, not alone for the college of medicine, but for all humanity. The income from the property transferred by Mrs. Hooper to the Regents of the University will be devoted to medical research, which is to be conducted in our laboratories and hospital.

Through the generosity of a number of public-spirited citizens approximately \$500,000 has been subscribed for a new University Hospital to be built in San Francisco. As soon as \$600,000 has been guaranteed, work will be begun.

The increase in the student body has been rapid. There were 104 registered for the session of 1912-13. As certain courses in anatomy, physiology, and pathology are attended by non-medical students, the problem of providing accommodation and facilities for the students is difficult of solution. The pathology building has been materially enlarged, but the quarters devoted to anatomy and physiology are too small for their purposes.

Respectfully submitted,

WALLACE I. TERRY,
Acting Dean.

DEPARTMENT OF PHARMACY

SAN FRANCISCO, July 1, 1913.

To the President of the University,

SIR: I have the honor of presenting to you the report of the College of Pharmacy covering the period July 1, 1912, to June 30, 1913.

During this time the previous year's policy regarding the improvement of equipment has been followed. Owing to an increase of attendance (in 1912 there were 82 students, in 1913 there were 99) the desk room in the laboratories was taxed to its utmost. Assuming that the increase for 1913-14 will be in the same ratio, the directors have authorized the placing of new work tables with an increased capacity for 38 students in the pharmaceutical laboratory, 18 for the chemical, and 12 for the microscopical.

Realizing the necessity for more effective class demonstration, we have installed an efficient balopticon with reflecting and micro-attachments. Likewise in the chemical laboratory ten additional balances have been purchased and others repaired to their full efficiency.

I am pleased to state that financially we are better off than ever before, and from a self-sustaining policy, not having the benefit of donations. I look forward to the following year as one in which we can give even better facilities to our students than we have in the past.

Modern pharmacy demands more than a buying-and-selling knowledge of drugs. Scores of raw materials and finished medica-

ments now have chemical and microscopical standards. It is the purpose of our teaching to prepare students for this class of work. The call is not alone for laboratory men, but for drug inspectors as well.

During the coming term the commercial side of our teaching is to be augmented by a series of lectures on business subjects from members of our Alumni Association.

Respectfully submitted,

FRANK T. GREEN,
Dean.

UNIVERSITY PRESS

BERKELEY, July 1, 1913.

To the President of the University,

SIR: I have the honor to present the following report upon the work of the University Press for the year 1912-13.

During this period there have been published 58 papers, distributed among 18 of the 22 series issued by the University, with a total of 2783 pages, 155 plates, and 100 other illustrations.

This output represents an expenditure of \$9,788.67 drawn from the "Publications" budget of \$11,900 for 1912-13. In addition there have been printed, in the *Publications of the Academy of Pacific Coast History*, 2 papers, and 13 issues of the *Lick Observatory Bulletin*. The *University of California Chronicle*, the administrative bulletins, the divers circulars of the Agricultural Experiment Station, several new syllabuses, and miscellaneous other publications have formed a large proportion of the work undertaken by the printing office, and have stood in the way of a better speed in the issue of papers submitted in the regular series. At the end of the year there are in press and nearing issue several papers of large size, including the third volume of the Memoir series, a quarto of 600 pages. Thirty-six papers in all, representing a total of between 2000 and 3000 pages, are now either in the hands of the Superintendent of the University Printing Office, or ready to be sent to press.

The activity of the Editorial Committee during the year has achieved results primarily in the following particulars: (1) The printed face, or make-up, of the scientific series has been altered so as to bring the page more nearly into conformity with good scientific usage; the length of the line has been increased to 26

ems and 2 lines have been added to the page, making a total of 40 lines. (2) The quality of the new paper introduced last year has been thoroughly tested and approved. (3) Provision has been made for the securing of such type as may be necessary for the printing of various specially difficult kinds of papers, particularly in mathematics. (4) Provision has been made for the safe storing of manuscripts and illustrations. (5) The Committee has gathered and sifted specific information concerning proposed contributions to the special series of publications for the semi-centennial celebration of the University in 1918. (6) New regulations and recommendations have been made concerning the publication of masters' and doctors' theses, the publication of syllabuses, and miscellaneous matters of detail. (7) The new series in Agricultural Sciences has been well started with four papers already published, and two more in press; the first volume of the Prize Essay series, established in March, 1912, was issued in December, 1912; and the first two papers in the series in Geography, established in October, 1912, were published in April, 1913.

The Committee has also carefully examined the needs of the Printing Office and has made some definite and other tentative recommendations for meeting these needs as emphasized in a report from Mr. Flinn, the Superintendent of the Printing Office. The largest expenditures involved in the enlargement of the plant are indicated in Mr. Flinn's estimates as follows:

- (1) For doubling the present floor space and rearranging the entire working force on that floor, \$4000;
- (2) For new cutter and supplies in the bindery, \$1000;
- (3) For an additional model 9 linotype, \$4000.

The total cost of seriously needed improvements is estimated at \$13,000.

The exchange distribution of the University's publications has been extended by the addition of 153 new addresses to the exchange list. These additions include 93 addresses for the new series in Agricultural Sciences, and 25 for the new series in Geography. The academic value of some of the new exchanges is notable: they include the Academy of Sciences, Heidelberg;

the American Microscopical Society, the Zoological Institute of the University of Geneva, the Imperial Russian Society of Archaeology, St. Petersburg; the Museal Verein für Krain, Laibach, Austria, and the Deutsches Museum, Munich. Among the journals added to our exchanges are *L'Année Biologique*, the *American Journal of Science*, and the *Publishers' Weekly*.

The appended tables are designed to show the scope and significance of the operations of the Press during the year just completed.

Respectfully submitted,

G. R. MACMINN,

Acting Manager of the University Press.

RECEIPTS FROM SALES OF PUBLICATIONS, 1912-13

Agricultural Sciences	\$10.84
American Archaeology and Ethnology	65.32
Botany	125.10
Classical Philology	9.79
Economics	15.20
Education	90.28
Engineering .....	.10
Geography .....	.75
Geology	126.37
History	8.85
Mathematics	1.50
Memoirs	132.75
Modern Philology	20.80
Pathology	4.65
Philosophy	5.11
Physiology	18.64
Prize Essay	7.40
Psychology	12.00
Seismology .....	.25
Semitic Philology	6.10
Zoology	113.46
	<hr/>
	\$775.26

<i>Brought forward</i>		\$775.26
Lick Observatory Bulletin	\$4.50	
Lick Observatory Publications	20.00	
		<hr/> 24.50
Library Bulletin		2.35
Publications Academy of Pacific Coast History		67.49
Graeco-Roman Archaeology (Tebtunis Papyri)		56.88
University of California Chronicle		88.03
		<hr/>
		\$1014.51
Alumni Directory	\$25.00	
Announcement of Courses	300.08	
Directory of Officers and Students	265.04	
Register	1.75	
Summer Session Announcement	87.49	
		<hr/> 679.36
Weinstock Lectures		23.09
MacCallum, On the Mechanism of the Action of Cathartics .....		.75
Syllabuses		391.26
Calendar		96.50
"English in the Secondary Schools"		20.40
State Geological Survey		19.00
"Zoe"		27.16
Sundries		11.05
		<hr/>
		\$2283.08

COSTS OF PUBLICATIONS, 1912-13

	No. of papers issued	Pages	Plates	Text figures	Printing	Costs Illus- trations	Papers in press or on waiting list July 1, 1913	Total
Agricultural								
Sciences	4	60	....	1	\$186.75	\$2.00	2	\$188.75
American Archaeology								
and Ethnology....	2	320	62	1	1131.50	779.44	1	1910.94
Botany	9	326	56	....	1089.25	235.82	..	1325.07
Classical Philology	..	.....	....	....	.....	.....	1	.....
Economics	1	100	....	....	235.50	.....	3	235.50
Education	2	286	....	8	740.25	7.67	..	747.92
Engineering	1	10	2	....	46.75	9.90	..	56.65
Geography	2	79	11	8	255.25	102.53	1	357.78
Geology	13	292	9	28	848.00	215.86	6	1063.86
History	1	195	....	....	481.25	.....	3	481.25
Mathematics	2	49	....	38	191.00	40.12	2	231.12
Modern Philology..	1	85	....	....	194.00	.....	2	194.00
Pathology	2	13	....	....	61.50	.....	2	61.50
Philosophy	1	84	....	....	179.25	.....	..	179.25
Physiology	2	71	....	....	171.70	.80	1	172.50
Psychology .....	..	....	....	....	.....	.....	1	.....
Sociology	3	84	....	....	132.00	.....	..	132.00
Zoology*	10	412	10	16	1217.00	388.33	14	1605.33
Memoirs	1	58	5	....	300.50	94.75	1	395.25
Prize Essay	1	259	....	....	450.00	.....	..	450.00
	58	2783	155	100	\$7911.45	\$1877.22	40	\$9788.67
Pacific Coast Hist.	2	233	2	....	646.25	10.00	..	656.25
Lick Observatory								
Bulletins	12	37	....	....	209.00	.....	..	209.00
Lick Observatory								
Publications† .	....	....	....	....	.....	.....	..	.....
	72	3053	157	100	\$8766.70	\$1887.22	42	\$10.653.92

* Not including reprints of Vol. 1, nos. 2, 4, 6 and 8, and vol. 3, title page and index, 56 pages.

† None issued in 1912-13.

DISTRIBUTION OF PUBLICATIONS

Series	Exchange	Department	Reviews	Subscr.	Others	Total
Agricultural Sciences	267	82	23	7	58	437
American Archaeology and Ethnology	288	100	25	17	52	482
Botany	365	25	29	13	60	492
Classical Philology	111	50	32	10	42	247
Economics	129	59	43	4	47	282
Education	134	6	24	6	40	210
Egyptian Archaeology	40	17	....	1	11	69*
Engineering	73	....	1	1	33	108
Entomology	144	....	7	1	36	188
Geography	91	29	11	....	49	180
Geology	370	4	22	31	50	502
Greek and Roman Archaeology	44	....	....	1	10	55*
History	98	79	21	....	47	245
Library Bulletin	141	38	15	....	16	210
Lick Observatory Bulletins† .....	....	....	....	....	....	445
Mathematics	90	....	5	4	47	146
Memoirs	145	4	12	4	43	208
Academy of Pac. Coast Hist.	183	125	12	20	21	361
Modern Philology	107	33	42	3	58	243
Pathology	189	100	16	7	62	374
Philosophy	107	95	18	7	43	270
Physiology	282	....	16	18	45	361
Psychology	74	72	41	4	66	257
Semitic Philology	73	31	19	4	24	151
Zoology	414	63	50	11	75	613
U. C. Chronicle	308	....	....	76	89	473

(The totals do not include the possible circulation of 200 copies by authors). Nothing has been published in the Entomology series since October, 1906.

* Not including copies distributed by the publishers.

† Distributed mostly to the Observatory's mailing list of observatories and astronomical societies.

SCRIPPS INSTITUTION FOR BIOLOGICAL RESEARCH

LA JOLLA, July 1, 1913.

To the President of the University,

SIR: My report for the year July 1, 1912, to June 30, 1913, is respectfully presented herewith.

Investigations Completed and in Progress.—In this report I distinguish, as usual, the continuous or programme investigations of the institution from the incidental investigations carried on at the institution.

(1) *Programme Work.* (a) *Biological.*—The year just passed has advanced the programme in several quite distinct ways. The axis of the programme I have frequently spoken of as being the problem whether or not the infinite hosts of animate creatures that dwell in the sea live their lives in an orderly way—whether law or anarchy prevails among them. In one connection I wrote: “To learn more than we know about the laws that prevail in the wealth of life of the great oceans seems to me an object of great importance for the highest welfare of mankind. So relatively slight is our knowledge in this domain . . . that all of us, professional biologists and the generally informed alike, look out upon the expanse of the sea with an impression concerning its inhabitants (so far as we think of them at all) that is very vague and therefore meaningless and uninteresting. We conceive this vast wealth of life *en masse*, as one may say; that is, our knowledge and thoughts about it are undifferentiated and chaotic. We take for granted in a hazy fashion that some sort of order prevails. Such knowledge has little power for good, either practical or theoretical. Knowledge as to what this order is must be explicit before it can be very significant and interesting. It

is just this kind of definite information that the San Diego Station is striving after."

No inconsiderable part of the year's progress has consisted in setting out sharply a number of questions as to how the "small fry" constituting the ocean's free-living population is related to its environment. Is it true, as a large and influential school of biologists have believed, that organisms are passive and plastic to the forces of their environment in much such way as a piece of red-hot iron is to the blacksmith's anvil and hammer? That such is not the case for some, at least, of the species being studied is indubitable according to the evidence obtained. Mr. Michael has shown by a comparison of the differences between the members of related species, with the differences of the environments of the same species, the determinations being rigidly quantitative for both organisms and environments, that no such correlation between the two sets of quantities exists as would be expected in accordance with the theory above indicated. The method of testing the anvil-and-hammer conception of organic kinds employed by us may be, and ought to be widely applied, as well to land plants and animals as to those of the sea; and it is for this reason that we regard the definition of the problem and the inauguration of a method of dealing with it as of almost as much importance as the results actually reached.

Another question brought to clearer focus by our work than ever before may be stated thus: Is it a general truth that natural organic species are as sharply differentiated from one another by their modes of life and activities as by their form and structure? Much evidence tending toward an affirmative answer to this has been accumulating in many quarters during recent years, and our investigations are adding weighty facts and inferences of like purport. "Each species", says Mr. Michael, referring to the chaetognaths, "occurring in the San Diego region has its own definite and specific manner of vertical distribution just as truly as it has its own specific morphological characteristics." And, with some differences, Dr. Esterly reaches a like conclusion concerning a radically different group of animals, the copepods.

Following close in the wake of the question last mentioned, that of the habits characteristic of individual organisms is brought into clear focus by our work. That all the individuals of a species differ from one another *structurally* to some extent has been a tenet of biology since Darwin recognized the fact and utilized it in his famous natural selection hypothesis. Now, so it seems, we must ask seriously and critically concerning their differences in *activity* also. Recent studies on "animal behavior" are engendering this necessity and our quantitative treatment of the movements and habits of organisms has a like bearing. When Michael and Esterly conclude that species are differentiated from one another in mode of life as well as in structure, they base this conclusion on the ascertained mean values of certain activities of great numbers of individuals. What of the performances of all the individuals which do *not* conform to this mean? We have gone no further with this question than to see that it must be asked, and that there are ways of approach to it full of promise for positive results. The subject would justify the expenditure of almost any amount of time and effort, for it is the biologist's gateway to the great problem of individuality. Biology's early, youthful motive is to find a single formula for all organic beings—to reduce them to a common denominator. This is good so far; so far, that is, as it corresponds with the nature of organisms. But it appears to be only half the story. Personality on the plane of human beings when understood through and through, always includes differences as well as similarities as between each man and every other man. Accepting difference as one of the essential criteria of human personality, must we not recognize that all organic beings whatever have something of personality? The evidence weighs heavily toward such a conception. To get still more evidence bearing on the question will be a prime object of future effort.

Another problem, minor in theoretical import as compared with those just mentioned, though of much local interest, has come specifically in sight during the last year, mainly from Dr Esterly's copepod work. Is the distribution of the minute pelagic organisms of this region determined to any extent by the dis-

tribution of ocean temperatures resulting from the "up-welling water" which is so important and peculiar a feature of this part of the Pacific Ocean?

The problems now in hand and thus formulated lay out very definitely, so far as aim is concerned, the programme work at sea for the immediate future. How far do the laws of distribution and activity found to hold in the groups studied, the Chaetognatha and the Copepoda, hold for other groups? In particular, how is it with groups still lower in the scale of life, on the one hand, and those higher in the scale, on the other? Dr. Esterly has already taken in hand the Ctenophera, a group of jellyfishes, to see how it is with these more lowly organisms; and the work of Dr. Kofoed and Mr. Barrows on the unicellular plants, the Peridinidae, will, it is hoped, yield illuminating results from this standpoint by the end of another year, though the minuteness of the latter organisms greatly increases the difficulties of research in several ways, both as regards collecting the specimens at sea and as to the quantitative treatment of them after they are in the laboratory.

As to animals higher in the scale than those already studied, Mr. Michael, with a little assistance from the director, has already well advanced the task of finding how one species of pelagic Tunicata behaves in relation to several of its environmental factors; and Dr. Esterly is now taking up the schizopod Crustacea, a group of animals far better equipped with eyes and swimming apparatus than any of the other groups so far under investigation.

During the year Mr. Michael has described a new member of the Chaetognatha or "bristle-jawed" worm, to which he has so long devoted himself. Few discoveries in biology are less significant than the discovery of a new species when such discovery stands all by itself. That it may, however, couple itself up with other knowledge in such a way as to make it genuinely interesting is well illustrated by this instance. After six years of the most painstaking collecting and examination of collections had elapsed, this new animal appeared all at once and in considerable numbers for a few days in October, 1911. Where did

they come from? How did they come? Did their coming depend chiefly on their own exertion or on currents or on other conditions of the sea? While in general there is evidence that the lives of all organisms are governed by law, what the law is, in so seemingly haphazard a case as this, is very difficult to find out.

In the sense of being administratively recognized and persistently followed up through a long period of time, the director's work on "The Organism as a Whole" must be counted as part of the Institution's programme. The aim of this undertaking is a far clearer recognition than has hitherto been reached, of the *ism* which many of the foremost biologists are sure exists, but concerning the nature and exact workings of which they recognize they are so much in the dark. The task involves the critical examination of a vast range of phenomena and literature, not only biological, as usually understood, but also chemico-physical and psychological. Stated in one way, the outcome foreshadowed is a far clearer recognition than has hitherto been reached, of the fundamentality and nature of *integratedness* as the counterpoise of *differentiatedness* in organic beings, the supreme expression of this integration of differentiated elements being that of what is called the physical, and what is called the spiritual, in human beings to make the individual *man*.

(b) *Oceanographic*.—As has been repeatedly stated, researches in this field are regarded as primarily in the interest of, and so subordinate to, the biological investigations. They are virtually investigations on the environment of the organisms. However, the results reached, as set forth in Dr. McEwen's last paper, published within the year, ("The Distribution of Oceanic Temperatures along the West Coast of North America deduced from Ekman's Theory of the Up-welling of Cold Water from the Adjacent Ocean Depths", *Internat Revue der gesam. Hydrobiol. u. Hydrograph.*), have a great scientific interest in themselves, and open the way to still others of equal scientific importance, and to possibilities of great practical moment. At last, after more than a half century of speculation about the temperature conditions of the Pacific off the California coast, in which the

Japan Current has played the leading rôle, we are getting clear insight into the situation; and it is not too much to claim that this Institution's work, in the hands of Dr. McEwen, has contributed more to this new light than any other single instrumentality.

By subjecting the hydrographic and meteorological observations previously collected, and those made by the Institution, to searching quantitative treatment in connection with a theory of oceanic circulation elaborated by the Swede, V. W. Ekman, the three factors—the direction and force of the wind, the rotation of the earth, and the presence and topography of a continental shore line—are proved to be by far the most important factors in producing the uniqueness of the oceanic temperatures of this region. Acting together, these cause the so-called “up-welling” of coastal waters, the low temperature of which, coming from the ocean's depth, appear to account entirely for the cool summer water and hence cool summer climate in California. One practical significance of this is, that, knowing the main factors in the problem of ocean temperatures in this region, and knowing further how the climate depends on the condition of the ocean, it may be possible by a study of the winds over the sea, and of the sea itself, to predict for some months ahead what in a general way the climate of the adjacent land will be. Undoubtedly much more study will be necessary to test the worth of this suggestion, but the obvious great value there would be in knowing beforehand that, for example, a dry winter is coming for California, would justify much effort to test the hypothesis.

To facilitate the future treatment of oceanographic phenomena of the region, Dr. McEwen has been occupied for some time with the search after physical formulae by the use of which the relatively few field observations that can be made at any one time shall give more information concerning the phenomena in question than the observations alone afford. This he hopes to accomplish by finding general statements as to the distance from the shore line to which the up-welling affects the surface of the sea, and the direction and velocity of the water; and further by determining formulae that will involve the dependence of

the temperature distribution of the water on the depths to which the heat of the sun penetrates the sea and is radiated from its surface at a given place.

For some months nearly the entire time of both Mr. Michael and Dr. McEwen has been occupied in the task of preparing for publication all the field data, both biological and oceanographic, thus far collected. This laborious and expensive piece of work has become indispensable for the further use of the data in the special researches based on them. So far as our own investigations are concerned, typewritten copies of the data might serve, and the expense of publication be thereby saved. However, investigators connected with other institutions and working on quite different problems from those now occupying us, are already asking for, and in the future will still more require, the use of the data. On this account largely we have decided, after much deliberation, that the whole thing should be published.

(2) *Non-programme Work*.—Of work under this head during the year, that by Dr. J. Frank Daniel and his student assistants on the cartilaginous fishes may be first mentioned. The aim of this is two-fold: In the first place, it is to produce what, in the end, will be an extensive monograph on the unique and hitherto little studied shark, *Heterodontus francisci*; and secondly, to make a comparative study of the anatomy of the elasmobranch fishes in general, much attention being given to the extensive literature of the subject. This summer's work will nearly or quite complete the task for several of the systems of organs of *Heterodontus*.

During the year I completed and published my long-delayed report on the collection of ascidians of the northeastern Pacific, belonging to the United States National Museum. Without in any wise minimizing the importance of studies in the classification of animals, I feel that I have done my share in this way, having devoted much time to such researches for twenty years, and so am privileged to lay them aside for some time at least.

The work prosecuted during the summers of 1911 and 1912 by Dr. Bennet M. Allen of the University of Wisconsin, on the natural history of the spiny lobster, under the joint auspices of

the California State Fish and Game Commission and the Scripps Institution, were discontinued with the termination of the season's work of 1912, the Commission not deeming it practicable to devote more of its funds to this purpose. Dr. Allen's efforts last year proved the impossibility of rearing these animals by the methods employed, namely, by confining the stripped eggs and the young in screen containers held by rafts anchored in the bay. The next attempt should be with the egg-bearing females themselves kept in the most effective aquaria that can be constructed.

Mr. Crandall continued his survey last summer of the kelp beds of the coast for the United States Department of Agriculture, extending the examination as far north as Puget Sound. Although the Department has made no provision for prosecuting the work further, Mr. Crandall and Mr. Wallace will carry on studies at the Institution's expense on the kelp bed at La Jolla with a view to learning the rate of growth and reproduction of the plants, and for determining what the beds amount to as a habitat for fishes and other animals.

The State Legislature passed a bill at its last session entrusting to this Institution the preparation of a report on the chance of protecting and still further developing various fishery industries of the coast; but since the bill, which carried with it an appropriation of \$5,000, failed to receive the Governor's approval, the work cannot be done in any such way as would have been possible had this money been made available.

Dr. M. M. Metcalf, Professor of Zoology at Oberlin College, is the only visiting investigator who has worked at the Institution during the year, he having devoted some time to a study of the pelagic Tunicata contained in the collections. With the increased laboratory work-room that will become available by the removal of the director's family to the residence soon to be erected for that purpose; and with the provision that has been made for domiciling naturalists near the laboratory, as well as for transportation, the facilities of the Institution may well be offered with more explicitness than heretofore to visitors.

Administration.—On July 1, 1912, the real regime of the University began in the management of the Scripps Institution for Biological Research. Although the formal transfer of the property from the Biological Association of San Diego to The Regents of the University had occurred some months earlier, the Comptroller of the University decided that it would be better to continue under the old order until the close of the fiscal year, July 1, 1912. Upon the same date also began the payment by Miss E. B. Scripps to The Regents of \$2,500 a month for two years or until the sum of \$60,000 should have been reached, this to be used solely for the physical development of the Institution.

In accordance with the terms of transfer a local Board of Directors was created to look after the details of management, their actions being at all times subject to the approval of The Regents of the University. Of this local Board the President of the University and the Director of the Institution are ex officio members, and Miss E. B. Scripps and Mr. E. W. Scripps are to be permanent members during their lifetime. The additional members were Dr. Fred Baker, president of the former Biological Association, and Mr. George A. Haines, who was elected secretary. Mr. Haines resigned later in the year owing to removal from San Diego, and Mr. W. C. Crandall was elected in his place. At the last meeting of the local Board it was voted that all permanent resident members of the staff shall be eligible to membership on the local Board, this action being for the purpose of making the Board more representative and more effective. Mr. W. C. Crandall, Mr. E. L. Michael, and Dr. G. F. McEwen were elected in accordance with this resolution.

One of the first steps in the University regime was that the Comptroller sent the University engineer, Mr. H. B. Foster, to the institution to survey the land and lay out roadways, building sites, etc., for the future improvements. An important feature in such improvements will be the construction of a sea-wall along the face of the cliffs in front of the present buildings to protect the cliffs from the encroachments of the sea. In connection with this will be a sedimentation tank which will be part of the salt-water pumping system soon to be installed.

Since the general business management would occupy the time of one man, the services of Mr. W. C. Crandall were secured on the first of February, 1913. Mr. Crandall had been connected with the station for several years, first as naturalist and then as master of the "Agassiz" during the vacation periods of the San Diego Normal School.

The first task undertaken by him was the erection of twelve cottages of various sizes to house the workers at the laboratory. The structures were ready for occupancy early in June. At the present writing nine are occupied, four by families, four by unmarried men, and one by persons not connected with the Institution, there being twenty-one persons thus added to the colony.

The increased activities of the Institution called urgently for a larger sum of money for running expenses; and since the State of California had been presented with an endowed property worth several hundred thousand dollars, it seemed natural to turn to the state for aid. To this end a legislative appropriation was asked and secured to the amount of \$15,000 for two years.

The local Board of Directors decided that this increase of \$7,500 per annum should be devoted to strengthening of the scientific staff and to additional work at sea by the "Agassiz." In addition to certain minor increases in the salaries of the present staff, it was voted to recommend to The Regents the appointment of one investigator to be of the rank of a professorship and two assistants. The first is yet to be selected. The two latter are Mr. W. S. Wallace, scientific assistant to the director, and Mr. A. S. Barrows, research fellow, as assistant to Professor Kofoed in his investigations on the Peridinidae. This last mentioned appointment establishes a precedent which will be given a trial for one year at least, i.e., that of a research fellowship of \$600, the holder being privileged to work for his doctor's degree.

On the first of January, 1913, Dr. S. S. Berry of Stanford University was appointed librarian. Certain business matters make it imperative for Dr. Berry to be out of the state for some months this summer and during his absence Mr. Edward P. Van Duzee, formerly librarian of the Grosvenor Library, Buffalo,

N. Y., will act as his substitute. In accordance with the policy adopted by the local board in the distribution of the \$60,000 for physical development, one-fourth of the amount is to be devoted to building up the library.

The position of aquarium attendant and collector has also been created, which position is yet to be filled.

In carrying out the arrangement that was made with the University four years ago, at the time the present director took up his residence at the station, he still continues to be a member of the teaching faculty of the University for one-fourth of each college year. This period of work in Berkeley has so far been the latter half of the second University semester. The engagement was carried out this year as usual.

For the year 1912-1913 the director served as president of the Biological Society of the Pacific, which held its annual meeting in Berkeley in April; and during the year was elected to membership in the American Academy of Arts and Sciences.

Respectfully submitted,

WM. E. RITTER,
Scientific Director.

SECRETARY OF THE REGENTS

UNIVERSITY OF CALIFORNIA,

Berkeley, July 1, 1913.

*To the Honorable Board of Regents
of the University of California:*

GENTLEMEN: I have the honor of presenting the following
Secretary's Report for the year ending June 30, 1913.

Respectfully submitted,

VICTOR H. HENDERSON,
Secretary of the Regents.

REGENTS OF THE UNIVERSITY, 1912-13

REGENTS EX OFFICIO

HIS EXCELLENCY HIRAM WARREN JOHNSON - - - Sacramento
Governor and ex officio President of the Regents

HIS HONOR ALBERT J. WALLACE - 621 Union Oil Building, Los Angeles
Lieutenant-Governor

ARTHUR H. HEWITT (to January 6, 1913) - - - Yuba City
Speaker of the Assembly

CLEMENT CALHOUN YOUNG, B.L. (from January 6, 1913)
Speaker of the Assembly
 Shattuck Avenue and Addison Street, Berkeley

HON. EDWARD HYATT - - - - - Sacramento
State Superintendent of Public Instruction

HON. A. LOWNDES SCOTT Seventh and Townsend Streets, San Francisco
President of the State Agricultural Society

RUDOLPH JULIUS TAUSSIG, Esq. (to March 6, 1913)
 Main and Mission Streets, San Francisco
President of the Mechanics' Institute

LIVINGSTON JENKS, A.B., LL.B., (from March 6, 1913)
 Mills Building, San Francisco
President of the Mechanics' Institute

BENJAMIN IDE WHEELER, Ph.D., LL.D. - California Hall, Berkeley
President of the University

APPOINTED REGENTS

The term of the appointed Regents is sixteen years, and terms expire March 1 of the year indicated. The names are arranged in the order of original accession to the board.

ISAIAS WILLIAM HELLMAN, Esq.	- - - - -	1918
Wells, Fargo-Nevada National Bank, San Francisco		
MRS. PHOEBE APPERSON HEARST	- - - - -	1914
Pleasanton. Business address: 410 Hearst Building, San Francisco		
JOHN ELIOT BUDD, A.B. (until March 10, 1913)	- - - - -	1916
Stockton		
ARTHUR WILLIAM FOSTER, Esq.	- - - - -	1916
1210 James Flood Building, San Francisco		
GARRETT WILLIAM MCENERNEY, Esq.	- - - - -	1920
1277 James Flood Building, San Francisco		
GUY CHAFFEE EARL, A.B.	- - - - -	1918
233 Post Street, San Francisco		
JAMES WILFRED MCKINLEY, B.S.	- - - - -	1922
Rooms 432-437 Pacific Electric Building, Los Angeles		
JOHN ALEXANDER BRITTON, Esq.	- - - - -	1914
445 Sutter Street, San Francisco		
FREDERICK WILLIAM DOHRMANN, Esq.	- - - - -	1920
201 Geary Street, San Francisco		
CHARLES STETSON WHEELER, B.L.	- - - - -	1928
Nevada Bank Building, San Francisco		
WILLIAM HENRY CROCKER, Ph.B.	- - - - -	1924
Crocker National Bank, San Francisco		
RUDOLPH JULIUS TAUSSIG, Esq. (from March 10, 1913)	- - - - -	1916
Main and Mission Streets, San Francisco		
PHILIP ERNEST BOWLES, Ph.B.	- - - - -	1922
427 California Street, San Francisco		
JAMES KENNEDY MOFFITT, B.S.	- - - - -	1924
First National Bank, San Francisco		
REV. CHARLES ADOLPH RAMM, A.B.	- - - - -	1928
1100 Franklin Street, San Francisco		
MRS. MINNA E. SHERMAN (died April 21, 1913)	- - - - -	1926
Fresno		
TRUXTUN BEALE, LL.B. (to March 10, 1913)	- - - - -	1926
San Francisco		
EDWARD AUGUSTUS DICKSON, B.L. (from March 10, 1913)	- - - - -	1926
Care of Express-Tribune, 719 South Hill Street, Los Angeles		

OFFICERS OF THE REGENTS

HIS EXCELLENCY HIRAM WARREN JOHNSON	- - -	Sacramento
	<i>President</i>	
RALPH PALMER MERRITT, B.S.	- -	220 California Hall, Berkeley
	<i>Comptroller</i>	
VICTOR HENDRICKS HENDERSON, B.L.	-	209 California Hall, Berkeley
	<i>Secretary and Land Agent</i>	
ISAIAH WILLIAM HELLMAN, JR., Ph.B.	Union Trust Company, San Francisco	
	<i>Treasurer</i>	
WARREN OLNEY, JR., A.B., LL.B.		
	Merchants' Exchange Building, San Francisco	
	<i>Counsel</i>	

STANDING COMMITTEES OF THE REGENTS FOR 1912-13*

Finance: Regents EARL, FOSTER, BRITTON, MOFFITT, TAUSSIG, and, as Member Emeritus, Regent HELLMAN.

Grounds and Buildings: Regents BRITTON, Mrs. HEARST, DOHRMANN, BOWLES, and C. S. WHEELER.

Agriculture: Regents SCOTT, FOSTER, WALLACE, HEWITT (until January 6, 1913), DICKSON (from May 13, 1913), and JENKS (from May 13, 1913.)

Medical Instruction: Regents CROCKER, MOFFITT, DOHRMANN, Mrs. HEARST, and DICKSON (from March 10, 1913.)

Lick Observatory: Regents RAMM, MCENERNEY, CROCKER, BUDD (until March 10, 1913), BEALE (until March 10, 1913), and JENKS (from March 6, 1913.)

Wilmerding School: Regents TAUSSIG, EARL and MOFFITT.

Scripps Institution for Biological Research: Regents MCKINLEY, WALLACE, and HYATT.

Executive Committee: This committee consists of the chairmen of all the other committees.

* The President of the Board of Regents and the President of the University are ex officio members of all committees of the Board. In each committee the name of the chairman is first and the name of the vice-chairman second.

SPECIAL COMMITTEES OF THE REGENTS DURING 1912-13

Committee on the Temperance Petition: Regents C. S. WHEELER, SCOTT, and MOFFITT.

Committee of Attorney Members of the Board, for Consideration of the Organization of the School of Jurisprudence: Regents EARL, BEALE, BUDD, McENERNEY, MCKINLEY, and C. S. WHEELER.

Committee on Architectural Relations: Regents EARL, BRITTON, and C. S. WHEELER.

Committee on Committees: Regents EARL, BRITTON, MOFFITT, SCOTT, and TAUSSIG.

STANDING COMMITTEES OF THE REGENTS FOR 1913-14

On June 10, 1913, the Board voted to recommend to the President of the Board that the Standing Committees for 1913-14 should be as follows:

Finance: Regents EARL, FOSTER, BRITTON, MOFFITT, TAUSSIG, and, as Member Emeritus, Regent HELLMAN.

Grounds and Buildings: Regents BRITTON, Mrs. HEARST, DOHRMANN, BOWLES, and C. S. WHEELER.

Agriculture: Regents SCOTT, FOSTER, DICKSON, JENKS, and WALLACE.

Medical Instruction: Regents CROCKER, MOFFITT, DOHRMANN, Mrs. HEARST, and DICKSON.

Lick Observatory: Regents RAMM, McENERNEY, JENKS, YOUNG, and CROCKER.

Wilmerding School: Regents TAUSSIG, EARL, and MOFFITT.

San Diego Marine Biological Laboratory: Regents MCKINLEY, WALLACE, and HYATT.

Executive Committee: This committee consists of the chairmen of all the other committees.

ORDERS OF THE BOARD

Resolutions on the Occasion of Mrs. Hearst's Seventieth Birthday:

On December 3, 1912, a University Meeting was held in the Harmon Gymnasium in honor of the seventieth birthday of Regent Phoebe Apperson Hearst. On that occasion President Wheeler read the following resolution as adopted by the Board:

"These Greetings from the Regents, the Faculty, the Alumni, and the Students of the University of California to PHOEBE APPERSON HEARST on her Seventieth Birthday, being the Third Day of December in the year Nineteen Hundred and Twelve, of the University the Fifty-Third.

"Phoebe Apperson Hearst, gentle mother of the University, on this your birthday we come bearing greetings of honor and of love.

"In the older days of this University a little company of scholars fed the flame of learning here, in a bare and humble precinct. But your eyes beheld the vision of a broader day, when thronging thousands would gather from all the Americas, and from lands beyond the sea, to enter into communion with the ardent spirit of the age, and the loftiest spirit of all the ages, and to quicken their minds and souls for the full living of life, and for service to their fellows and the State.

"Let us lay the foundations broad and deep, you said, let us plan not for today that fades already but for ages yet to flower. The ministry of beauty was yours. Other minds have kindled and will enkindle from your aspiration. Future generations, coming in unending pilgrimage to these academic groves, will carry hence the gospel of an architecture and an art fit enhancement and fit expression of what God has wrought, here in this fair seaward prospect from the threshold of the hills.

"From all lands have you gathered here the sculptured stone, the pictured clay, the metal hand-enwrought, and the fabric all interwoven with symbol and tradition—things which tell the story of how men lived their lives through the changing ages. From the presses of mediaeval printers, from the cells of monkish illuminators and Oriental craftsmen, you have garnered rare and beautiful volumes; from the wonderland of living beings, strange plants and birds and beasts; from the workshops of Germany and France, apparatus for constructive researches in science; from the depths of the hills you have quarried enduring

granite, to rear a mighty habitation for the mining arts; to the service of the community have you given scientists, men of affairs, and artists in form, color, sound, and the written word, all trained for their work in the world by your fostering care.

"But first and most, you have given to your time fit ensample of good womanhood—neighbor, friend, wife, mother—mother in tender affection to a very host of young and old, of people and of causes and of aspirations. Diligent in toil, faithful in responsibilities, generous in affection, modest and simple in demeanor, forgetful always of yourself and thoughtful always of others, good citizen, wise counsellor, lover of truth, beauty, righteousness, and wisdom, now do we say, with hearts overflowing with affection, that of all your varied service to the world, most precious of all is the testimony of your life in its living to the goodness and beauty of woman."

Honorary Degrees:

On May 13, 1913, the Board voted to confer the Honorary Degree of LL.D. upon the following-named recipients:

Chief Justice William Henry Beatty, Rev. Dr. John Knox McLean, Judge William W. Morrow, John Muir, and John Swett. These degrees were duly conferred on Commencement Day, May 14, 1913.

Chief Justice William Henry Beatty, Rev. Dr. John Knox McLean, Judge William W. Morrow, John Muir, and John Swett.

The Honorary Degree of LL.D. was conferred on Charter Day, March 23, 1913, upon Sir Richard M'Bride, Premier of British Columbia, the Charter Day speaker of the year.

Death of Regent Minna E. Sherman:

Regent Minna E. Sherman died at Fresno on April 21, 1913. Through illness Mrs. Sherman had been prevented, since her appointment on March 10, 1913, from sitting with the Board. She had had a distinguished career as a practical scientific agriculturist and as a leader in community welfare activities.

Deaths of Members of the University:

Deaths as follows were reported to the Board during the year:

Frank Soulé, Emeritus Professor of Civil Engineering, died February 14, 1913.

Dr. George H. Powers, Emeritus Professor in the Medical Department, died in May, 1913.

Thomas Rutherford Bacon, Professor of Modern European History, died March 26, 1913.

On October 8, 1912, the Finance Committee reported the death, on September 16, 1912, of Ralph Frisselle, General Manager of the Kearney Vineyard.

Lester H. Jacobs, Lecturer in the Law of Insurance, died March 23, 1913.

Death of Regent John Eliot Budd:

John Eliot Budd, '74, a Regent of the University from 1896 to 1913, died on May 21, 1913. On account of ill health he had resigned his membership in the Board only a few months before his death. The development of agricultural education and the establishment of the Summer Session were two matters of University life to which he gave particularly enthusiastic aid and counsel.

Death of Mme. Thérèse F. Colin:

Mme. Thérèse F. Colin, a benefactor of the University, died at Wellesley, Massachusetts, on April 7, 1913. In December, 1905, Mme. Colin had deeded to the Regents property in Escondido, Oceanside, and Redlands, as endowment for the Thérèse F. Colin European Graduate Fellowship Fund. The Regents, by vote on November 14, 1906, agreed to pay the net income of this endowment to Mme. Colin throughout her life, and after her death to apply the net income of the endowment to the maintenance of a European Graduate Fellowship in the Romanic Languages for graduates of the University of California. The endowment now appears in the books of the University as of an estimated value of \$10,961.94. Of this amount, \$1447.84 is in the Endowment Pool, while the balance is in the form of real property.

School of Jurisprudence:

On October 8, 1912, President Wheeler presented for consideration the proposal of the law faculty at Berkeley that a School of Jurisprudence be constituted. He presented a statement of the matter from Professor William Carey Jones which was in part as follows:

"The Department of Jurisprudence was established in 1894.

"Since 1902 it has offered, in addition to the academic courses, a full professional curriculum.

"It has a complete corps of teachers, new men having been added by authority of the Regents from time to time, until today they number thirteen actively engaged in instruction—professors, lecturers, instructors.

"The curriculum of the professional course extends through three years, beginning at the earliest with students of Senior standing in college. Two years are strictly graduate in character.

"The Degree of Juris Doctor is conferred, by authority of the Regents, on the completion of this curriculum, not less than two years after receipt of a bachelor's degree in arts and sciences.

"The law degree has been conferred since 1903. Forty-eight persons have received the degree. Of these, forty-five are now practicing law, one is teaching school, one is a university teacher of law, one is taking the new fourth year in Harvard Law School.

"The Code of Civil Procedure (Sec. 208b) provides that persons producing evidence of having satisfactorily completed the three years' course of study prescribed by the Department of Jurisprudence shall be entitled to a license to practice in all the courts of the state.

"The number of students enrolled the present semester in the courses leading to the degree of J.D. is 121—67 in the first year, 37 in the second year, and 17 in the third year. Of this number, 58 are holders of bachelor's degrees, 15 from universities other than the University of California (including Harvard, Columbia, Wisconsin, Pennsylvania, Brown, Stanford); two hold master's degrees, and one holds the degree of Doctor of Philosophy from Columbia. This is a larger number of law students holding degrees than can be shown by any other law school west of Chicago.

"In addition to the 121 enrolled in the professional courses, there are 400 students registered in the several academic courses given by the Department of Jurisprudence.

"The Department of Jurisprudence occupies a separate building of its own, expensive, substantial, enduring—the Boalt Hall of Law—the gift of Mrs. Elizabeth J. Boalt and of the lawyers of California. Herein are lecture halls, reading room, and a library with nearly 10,000 volumes of law books. The book stacks have a capacity of 75,000 volumes.

"The law library is sustained by a permanent endowment from Mrs. Jane K. Sather.

"Two scholarships have been endowed for the benefit of law students at Berkeley.

"The faculty and students have completed arrangements for the publication of a bi-monthly magazine, to be known as the California Law

Review. The periodical will be conducted in the interests of the legal profession of the Pacific Coast. It will contain articles on important topics of Western law, written by leading members of the profession and by members of the Faculty, together with critical notes on current California cases.

"A delegate—Dr. M. C. Lynch—was sent by the Department of Jurisprudence to meetings of the American Bar Association and the Association of American Law Schools, held in Milwaukee the last week in August. The Department was admitted to membership in the Association of Law Schools. Professor Roscoe Pound, of Harvard Law School, President of the Association of American Law Schools, Professor Samuel Williston, of the Harvard Law School, Professor Albert M. Kales, of the Northwestern University Law School, and Professor William R. Vance, Dean of the College of Law of the University of Minnesota, vouched for the standing of the Department of Jurisprudence, not only stating that it had been entitled to admission for six years or more but testifying to the high rank it held among the law schools of the country.

"Here we have a situation, but no name, title, or emblem to symbolize it.

"The adoption of an appropriate name to meet this situation would be of advantage in the internal development of the work of the department and in increasing the attendance of students. It would remove misconceptions, it would obviate explanations. It would give individuality, dignity, prestige to the institution. And it need involve nothing more than a formal recognition of an actual state of facts.

"The question is, what name shall be used?

"The Association of American Universities has defined the meaning of the several terms, 'Department', 'Course', 'College', and 'School', and recommends the employment of these terms for distinct uses. This association recommends that 'School' be used to designate a part of the University the standard of admission to which is not less than two years of college work and which offers instruction of not less than two years in length leading to a technical or professional degree.

"Advantages of the name 'School'.

1. Practical convenience of a distinctive designation for professional university departments whose professional course either follows the bachelor's degree or falls partly within the graduate division and partly within the Upper Division of the present four-year colleges.
2. The name 'School' preferable to the name 'College', because:
 - a. The name 'College' is not distinctive. It stands for a confusing number of meanings.

- b. It implies in its narrow technical or official sense a specific kind of organization and administrative machinery. The use of the name "School" calls for no changes that would increase the complexity of university organization or that would tend to disrupt university unity.
3. The name 'School' defines for the student the professional character of his aims and of his membership in the university. It serves, like a fraternity emblem or flag, to symbolize the student's interests, ideals and loyalty to his chosen course.
4. The name 'School' defines for other institutions the character and status of the department so named. In other universities of the country the name is used, and the Association of American Universities recommends its adoption.

"The Department of Jurisprudence more than meets the requirements for a School as set by the Association of American Universities. Its standard is three years of college work, and three years of law work, two thereof being necessarily graduate. Its curriculum leads to the degree of Juris Doctor, which is both professional and scientific.

"It would be the natural, logical next step to designate the group or groups of courses and studies leading to the degree of Juris Doctor that may from time to time be authorized by the Academic Senate, whether within or without the Department of Jurisprudence, by the title of School of Jurisprudence."

On November 12, 1912, the Regents approved and adopted the following report of a committee of the attorney members of the Board:

"At the October meeting of the Board you referred to this committee the recommendation of the Department of Jurisprudence, as transmitted to the Board by President Wheeler, that the organization of professional instruction in law at Berkeley be known as the 'School of Jurisprudence.'

"We have the honor of recommending that a School of Jurisprudence be in this manner constituted, as a matter of proper University policy, as an establishment of the existing situation, and as a recognition of the excellent provision for professional training in law which has now been created by the generosity of Mrs. Boalt, of the lawyers of California, and of Mrs. Jane K. Sather, the endeavors of the faculty, and the general development of the University."

University Extension:

On December 20, 1912, the Regents approved the following recommendations of the Academic Council:

I. Organization.

"1. That the work of University Extension be organized under the general name University Extension Division, and be conducted through five departments, as follows:

- "(a) Department of Class Instruction,
- "(b) Department of Correspondence Instruction,
- "(c) Department of Public Lectures,
 - "(1) Lecture studies,
 - "(2) The University Extension Lyceum,
- "(d) Department of Debate and Public Discussion.
- "(e) Department of Information and Social Welfare.

II. Administration.

"1. That the work of University Extension be administered by the President of the University, the Director of University Extension, and secretaries of the different departments of University Extension.

"2. That secretaries of the departments of class instruction, correspondence instruction, and of public lectures be at once appointed, and

"3. That until such time as the expansion of the work may make necessary the appointment of additional secretaries, the work of the department of debate and public discussion and the department of information and social welfare be organized and conducted under the supervision of the Director and the supervision of the Committee on University Extension of the Academic Senate; with reports to be made thereon to the Academic Council at regular intervals.

"4. That for the purposes of organization and administration the state be divided into three districts, the respective boundaries to be determined by the Director; that the secretaries act as organizers in these districts, and that the secretary of the southern district have headquarters in Los Angeles.

III. Faculty.

"1. That the University Extension faculty consist of the President, the heads of University departments in which University Extension courses are announced, and the instructors offering work in the University Extension Division;

"2. That all members of the Extension staff be normally members of the University departments in which their work is given, and

"3. That University Extension service be regarded as regular University work for the individual instructor.

“IV. Courses of Instruction.

“1. That in general the Director and the heads of University departments shall determine the courses of instruction to be offered in University Extension, and by whom such courses are to be given;

“2. That, if upon request of the Director that certain courses be offered in University Extension it is found to be necessary in order that such courses be given to employ additional readers, assistants, instructors, or professors, the salaries of such assistants, readers, instructors, or professors, or such proportion of their salaries as their work in University Extension may bear to their entire service, be paid from the University Extension budget;

“3. That we recommend, and rely upon, the co-operation of all the University departments in the work of University Extension to the extent that such co-operation is possible without assigning to any member of the department an undue amount of work.

“V. Fees.

“1. That for class work of fifteen hours instruction, and for correspondence work of fifteen lessons, a regular fee of \$5.00 per student be charged;

“2. That for lectures delivered by members of the University Extension faculty a nominal fee be charged;

“3. That for lectures delivered by persons not connected with the University the fee should be the actual cost to the University of such lectures.

“VI. Appropriation.

“1. That inasmuch as, according to the estimate of the Committee, the cost of administering the work of University Extension, together with the expenses for office equipment, printing, instruction, postage, express charges, books, etc., will exceed \$25,000 per annum, the budget of the University as presented to the Legislature include the sum of \$50,000 to be appropriated for University Extension for the biennium 1913-15.”

No special State appropriation has been provided for this work for 1913-15.

School of Education and School of Architecture:

On March 11, 1913, the following recommendations of the Academic Senate were adopted:

“A. That the term ‘School of Education’ be adopted to designate the group of professional courses in Education intended

“I. For students preparing to become teachers in secondary schools or in colleges;

“II. For students preparing to engage in school administration or to teach in normal schools or in university departments of education;

“III. For graduates of normal schools, who are making further preparation for teaching in elementary schools.

“B. That the term ‘School of Architecture’ be adopted to designate the professional three-year course in architecture covering the fourth year of a college of general culture and two years of graduate study.”

Poliomyelitis Investigations:

On December 20, 1912, President Wheeler reported the receipt from the State Board of Health of a letter expressing its appreciation of the co-operation of the University with the State Board of Health in pursuing an immediate investigation of important problems in the transmission of poliomyelitis.

Recognition by the State of University Degrees:

On December 20, 1912, President Wheeler reported that the Academic Senate had memorialized the Regents to the effect that it is still the desire of the Academic Senate that the State laws governing the practice of medicine and other learned professions in the State of California should be modified in such way as to recognize the professional degrees of the University of the State.

The earlier memorial referred to by the Academic Senate was a report of the University Council, dated April 20, 1910, adopted by the Academic Senate May 4, 1910. This memorial appears in the Secretary's Report for the year ending June 30, 1910, page 38.

On December 20, 1912, the Regents voted to refer this matter to a committee of the Board.

Temperance Petition:

On December 20, 1912, a delegation appeared before the Board as representatives of the following organizations: Oakland Preachers' Meeting, Baptist Young Peoples' Association, Christian Endeavor Union of Alameda County, Epworth League Alliance of California, Woman's Council of Berkeley, State Women's Christian Temperance Union, Anti-Saloon League, San Francisco Preachers' Meeting, and Presbyterian Preachers' Union of San Francisco and vicinity. This delegation presented a petition

to The Regents regarding questions of temperance. The petition was referred to a committee of Regents consisting of Charles S. Wheeler, A. L. Scott, and James K. Moffitt.

Report of the Special Committee on the Temperance Petition:

On March 11, 1913, the Special Committee on the Temperance Petition presented the following report, which was approved by the Board:

“The petition which your Committee is called upon to consider makes two requests of this Board, which we state in their inverse order:

“First: ‘Will you please define for us the government of the student body of the University. With whom is authority lodged? i.e., who has the right to pass legislation, to determine the intent of such legislation and to enforce such legislative acts? If the government is in part given over to the students, while other features of government belong to the University President or to the Faculty of the University, will you please state for us the limits of authority granted to each?’

“Second: ‘We petition, advise and urge that you pass a rule that no alcoholic, vinous or malt liquors be allowed at any function, social or otherwise, given in the name and by the authority of the University of California, or of any department thereof, or of any organization officially bound thereto, or of any company of persons, governed by or officially related to the Board of Regents, Faculty or Student Body of the University of California.’

“Your Committee reports that the first of the foregoing questions may properly be answered as follows:

“The ‘Regents of the University of California,’ a corporation, is, under the organic act and amendments thereto, vested with the general government, superintendence and control of the University. (Act of March 23rd, 1868, Sec. 11; Constitution of 1879, Art. IX, Sec. 9; Political Code, Sec. 1425.)

“In their corporate capacity, the Regents are expressly authorized to enact laws and to prescribe rules for the government of the University, and for the government and discipline of the cadets. (Act of March 23, 1868, Sec. 13; Political Code, Sec. 1432.)

“While the ultimate responsibility thus rests upon the Board of Regents, in their corporate capacity, nevertheless the immediate government and discipline of the students of the several Colleges of the University is vested by law in the respective Faculties of the several Colleges in connection with the President of the University as their executive officer. The Academic Senate (in which the right of voting is confined to the President and all the Professors of the University) is empowered to ‘receive and determine all appeals, couched in respectful

terms, from acts of discipline enforced by the Faculty of any College.' (Act of March 23, 1868, Sec. 18; Political Code, Secs. 1391 and 1462.)

"While the power to enact laws and to prescribe rules for the government of the University is thus given to the Board of Regents, and while such Board is the responsible ultimate authority in such matters, nevertheless the several Faculties, under the power conferred upon them by statute to govern and discipline the students of their respective Colleges, have authority also to lay down rules of conduct, provided always that such rules are not inconsistent with the State law or with such laws and rules as may be passed by the Regents.

"In coming to the remaining request of the petitioners, the following facts should be borne in mind:

"While it is true that the Board of Regents possesses the power to enact a code of express rules, defining what the students may or may not do, nevertheless it has been the policy of this Board, throughout the entire history of the University, to refrain from exercising it. It has been the feeling of the Regents that the manhood of California represented by the young men at the University could be best encouraged and developed, not through mandatory and prohibitory regulation, but rather by an appeal to the best instincts of the students—to their loyalty to the University and its interests, to their respect for public opinion, and to their sense of obligation to the taxpayers of the State whose beneficiaries they are. Hence it is that no formal set of rules governing student conduct has ever been adopted by this Board.

"But, while such is the fact, it by no means follows that there is no provision for the regulation of student conduct. It has always been the law of the University, recognized in innumerable instances, and established by years of precedent, that any conduct detrimental to the welfare of the institution, or injuriously affecting the individual in his relations to it, is cognizable by the University authorities. Acts of misconduct, either by single individuals or even by whole classes, have from time to time brought upon the offenders various forms of disciplinary punishment, including suspension and expulsion.

"The method of dealing with student offenses, which has been sanctioned for a number of years past, is to entrust to a committee of students, representative of the student body, the investigation and trial of student offenses. This committee is known as the Student Affairs Committee. Instead of themselves naming this committee directly, the University authorities have deemed it wise to entrust its selection, from time to time, to the president of the student organization known as 'The Associated Students of the University of California.' This is for the excellent reason that that organization has in its membership upwards of seventy per cent. of the students, and its President is therefore representative of the student body.

“The results which have followed the policy of the Regents regarding the control of student conduct are a complete vindication of the policy itself. The many witnesses examined by your committee, while holding radically opposite views from each other upon the issues under discussion, all agree that, under the system of student self-government now in force, the students of the University of California as a body hold a position second to none in the nation for decency and regularity of conduct, and for individual and collective rectitude and honor.

“The student body now numbers upwards of forty-eight hundred, and your committee feels moved to express its belief that no other group of college men and women is anywhere to be found in which there exists a higher idealism, or which inspires greater hope and assurance for the future of the Commonwealth.

“The petition referred to your committee is not concerned with cases of actual student excess; but it urges that this Board pass a rule which would make the mere presence of alcoholic, vinous or malt liquors at all University functions a disciplinary offense. While this Board is in entire sympathy with movements looking to the encouragement of temperance among the students, it is nevertheless obvious that to adopt such a measure as is thus requested would be to forego our present system of student self-government. Before taking so radical a departure it is well, we think, to look far enough into existing conditions to see whether it would be wise to resort to such legislation. The occasions which the request of the petitioners would cover are not numerous. The men of the Senior class are accustomed to give a banquet each year, as are also the men of the Junior class. The Sophomores have given an annual smoker in past years, but it is not believed that the practice will be revived this year. The same is true of the Boating Association. Other student organizations, such as the Engineers, the editorial staff of the *Daily Californian*, and the fraternities, also give occasional dinners. At such dinners table wines are usually, though not invariably, served. At some of the smokers it has been the custom to have beer. In years gone by there have been excesses on the part of some students on some of these occasions, but there has been a marked improvement in this regard under the present system of student control. No showing is made that there has been any intoxication or excesses on any of these occasions during the present University year of 1912-1913. That student opinion is frowning upon all such excesses is clear. That among the students there is a decided trend towards placing a ban upon the use of liquors at dinners of their respective organizations is evidenced by the following resolution passed by the Associated Students of the University of California on the 8th day of March, 1912:

“ ‘Be it resolved that the Associated Students of the University of California do hereby openly declare their position as opposed to the

use of liquor by any student organization on the campus of the University of California, and furthermore

“ ‘Be it resolved, that it is the sentiment of the student body that the use of intoxicating liquors be barred from all banquets and smokers and other functions of the various student organizations of the University.’ ”

“As already stated, the body which passed the foregoing resolution comprises upwards of seventy per cent. of all the students at Berkeley. The several classes have their own separate organizations, and, while the Associated Students of the University of California has no actual control over the dinners or functions given by the classes, or by other independent student organizations, yet its influence is great. It is probably true that but one of several student functions which have occurred since the resolution was passed has yielded directly to the sentiment expressed in the resolution; but nevertheless your committee does not doubt that the attitude of the student body is such today that this question is well in line for a voluntary and satisfactory solution by the students themselves. In this connection we invite attention to the following extracts from a recent open letter addressed to the people of California, and signed by the President of the Associated Students:

“ ‘The student body in the University believes absolutely and entirely in the progress of the temperance cause. They believe further, however, that temperance will be effectively and permanently achieved only if it grows out of the life and spirit of the students and has the approval of student public opinion. The issue is simply one of methods.’ ”

“The letter goes on to say that certain students ‘believe in formal progress of the temperance cause by rules and by-laws inserted into the student constitution. Such rules would be at best difficult of enforcement. The majority of the students, on the other hand, believe in real progress by encouraging the spirit and desire for temperance in the opinions and lives of the students. It is really a case of the reality as against the shadow of temperance.’ ”

“ ‘Under the present regime of student self-government the progress of temperance in the University of California has been nothing short of phenomenal—that is the testimony of alumni who know. We do not want to retard this fine progress grounded on student public opinion by reverting to the entirely different and fallacious policy which vainly seeks righteousness by rule instead of intelligent belief.’ ”

“To grant the request of the petitioners at this time would, as we have stated, mean an abandonment of the system of student control which has proved such a gratifying success. It would mean an attempt upon the part of this body to accomplish, by prohibitory rule, what our young men may be relied upon to do voluntarily, through their several organizations, once they are impressed that the best interests of their

Alma Mater demand it. Past experience gives us ample assurance in this regard. Practices which, in earlier years, were treated as matters of course are now frowned upon by student opinion, and customs such as hazing and 'rushes', which it was believed would injure the University in the public mind, have been voluntarily abandoned. Students have, in such matters, willingly put aside their individual opinions for the sake of the University, and we believe they may be relied upon to do so whenever occasion demands it.

"It would not do for this Board to adopt rules and not enforce them. The enforcement of a rule such as that requested would, in the opinion of your committee, lead to subterfuge and clandestine drinking bouts, and would call for a system of espionage, with attendant student resentment and insubordination.

"The cause of temperance is now flourishing and making steady progress with the student body. Your committee does not believe that it would prosper similarly under enforced prohibitory regulations. It is, therefore, the opinion of your committee that it would be unwise and inexpedient for this Board to pass such a rule as petitioners request, and it advises you accordingly."

Respectfully,

CHARLES S. WHEELER,

J. K. MOFFITT,

A. L. SCOTT.

San Francisco, March 11, 1913.

The foregoing report of the special committee was received and approved, and the committee was discharged.

Rules Amended Regarding Acting Chairmen of Committees:

September 10, 1912, the rules were amended by the adoption of the following new Standing Order, No. 97:

"In the absence or inability to act of the chairman of a committee, the member of a committee next in order of appointment who is present and able to act shall have authority to sign as acting chairman of the committee."

Standing Order Regarding the Departmental Libraries:

On May 13, 1913, the following amendment to the Standing Orders of the Board was adopted, for insertion between paragraphs 3 and 4 in Standing Order 292, Old Series 109:

"All books purchased for departmental libraries shall be catalogued by the Librarian as part of the general library, and the Librarian shall furthermore make an annual inspection of

the departmental libraries with a view to checking off the existing books against the catalogue, and shall furthermore make annual report to the President concerning the general condition of such libraries."

New Standing Order Regarding Loan Funds and Scholarships:

On May 13, 1913, the following new Standing Order was adopted:

"Loans from loan funds and appointments to scholarships, unless otherwise required by the terms of endowment or gifts, shall be applicable only to undergraduates in the colleges at Berkeley."

Standing Orders Amended Regarding Committee on Agriculture:

On June 10, 1913, Standing Order No. 90 was amended so that its reference to the Committee on Agriculture should be as follows:

"Committee on Agriculture; consisting of five appointed members; the Dean of the College of Agriculture shall be a consulting member, but without vote."

Execution of Surety Bonds for the Regents:

Those signing bonds for the Regents, thereby becoming surety for the performance of obligations of the corporation, have been protected by the adoption by the Board on March 11, 1913, of the following indemnifying resolutions:

"WHEREAS certain of the Regents and other officers, agents, and employees of this corporation, The Regents of the University of California, have in the past executed undertakings, bonds, and other instruments in writing, whereby they became surety for the performance of various obligations of this corporation, and whereas it is expected that in future the officers, agents, or employees of this corporation will execute similar instruments in writing whereby they may become surety for the due performance of either present or future obligations of this corporation;

"Now, Therefore, this corporation hereby agrees that it will, at its own cost and expense, indemnify and hold harmless any person who has executed, or who may at any time in the future execute, any bond, undertaking, or other written instrument, whereby he becomes surety for the performance of any of the obligations of this corporation, from any claim of any kind whatever based thereon which may be asserted against him; and

this corporation further agrees that it will, at its own cost and expense, defend any and all actions and suits of every character based on any such bonds, undertakings, or written instruments, which may be brought to enforce any such obligation against any such surety."

Agreement with the Architect:

On November 12, 1912, the Regents approved an agreement with John Galen Howard as Supervising Architect which provided:

"1. The Supervising Architect shall have to do only with that portion of the campus of the University of California, at Berkeley, which lies to the west of the proposed roadway shown on the Phoebe A. Hearst Plan for the University of California, connecting Highland avenue with Piedmont avenue, and shall have nothing to do with any other portion of the campus or other lands controlled by the Regents except by the written request of the Regents, and under special arrangements to be made at the time of such request.

"2. The duties of the Supervising Architect shall be, subject to the approval of the Regents, to render full architectural services, as defined by the schedule of the American Institute of Architects, hereto attached, in the design and execution of all buildings, roads, bridges, paths, athletic fields, tunnels, monuments and other decorative features which are a part of said Phoebe A. Hearst Architectural Plan. As full compensation for such services he shall receive six per cent (6%) of the total cost. Heating, ventilating, electrical work, conduits, and lighting and lighting fixtures which are incorporated in buildings, are included in the above and his fee therefor shall be six per cent (6%) of cost; but heating and ventilating work, electrical work and conduits which are located in tunnels or outside of buildings are not included, and the Supervising Architect is entitled to no fee therefor unless he is specially authorized by the Regents in writing to take charge of such work, in which case his fee shall be six per cent (6%) of cost. In all cases, however, the Supervising Architect is to be advised of the proposed execution of any work which involves excavation or change of grade within the region covered by this agreement, in order that he may have the information necessary for the further development of the plan and in order that he may safeguard the undertaking otherwise. Built-in furniture is, in general, to be included in the work of which the Supervising Architect has charge as being an integral part of the structure, and his fee therefor when such work is in his charge shall be six per cent (6%) of cost; but the Regents may withdraw such work from the charge of the Supervising

Architect by communicating their decision to him in writing, in which case he is not entitled to any fee. Movable furniture is, in general, not included in the work in the charge of the Supervising Architect, but the Regents may place such work in his charge by giving him written authorization, in which case his fee shall be six per cent (6%) of cost.

“3. Landscape work which is a part of the Phoebe A. Hearst Plan is to be in general in the charge of the Supervising Architect and his fee therefor when in his charge is six per cent (6%) of cost; but the Regents may at any time employ landscapists, engineers, and other experts, to take entire charge of landscaping, gardening, planting, and similar work on any portion of the campus, in which case the Supervising Architect is entitled to no fee. In all cases, however, all plans for such work are, before execution, to be submitted to the Supervising Architect for a report by him thereon, in order that the undertaking as a whole may be duly safeguarded and that he may have the necessary information. For such reports the Supervising Architect is entitled to no fee, unless the Regents specially request in writing that the Supervising Architect prepare plans for such work, in which case the fee of the Supervising Architect shall be six per cent (6%) of cost, which cost shall not include fees paid landscape experts on the cost of trees, shrubs, or plants of any kind. Should the Supervising Architect be, by written order of the Regents, called in consultation with such experts as are provided for in this paragraph, he shall be paid for services as consultant such fees as may be agreed upon hereafter.

“4. The construction of all temporary buildings, and all alterations of existing buildings, on that portion of the campus described in paragraph 1 of this agreement, shall be in charge of the Supervising Architect. He shall receive as compensation for his services in relation thereto six per cent (6%) upon the total cost thereof. In special cases such work may be withdrawn from this agreement by mutual consent of the Regents and the Supervising Architect, but in such cases the work shall be subject to the approval of the Supervising Architect in order to safeguard the Phoebe A. Hearst Plan as a whole, for which approval he shall receive no fee.

“5. In case donations of moneys to the University for the construction of buildings or improvements are conditioned upon the employment of other architects, the construction of such buildings or improvements shall be subject to the approval of the Supervising Architect, who shall receive for his service as consulting architect such fees as may be agreed upon hereafter.

“6. The Regents shall pay the salaries of all necessary inspectors, who shall be under the direction of the Supervising Architect, nominated by him, and subject to dismissal by him.

“7. This agreement may be terminated at any time by either party by giving written notice of such termination to the other; provided, however, that in the case of buildings for whose construction contracts have been let or for which working drawings and specifications have been prepared by the Supervising Architect in accordance with due authorization by the Regents, he shall receive the six per cent (6%) above specified of the total cost for services in relation thereto and shall complete the supervision of construction thereof. For all other work which has been duly authorized, but which is incomplete at the time of termination of this agreement, and for work which is abandoned after it has been duly authorized, the Supervising Architect shall receive as full compensation therefor:

“a. For preliminary studies, a fee in accordance with the character and magnitude of his service, the fee for full preliminary studies being one and one-fifth ($1\frac{1}{5}$) per cent of the proposed cost;

“b. For specifications and general working drawings (exclusive of details), a fee of two and two-fifths ($2\frac{2}{5}$) per cent of the proposed cost;

“c. For details, a fee of three-fifths ($\frac{3}{5}$) per cent of the proposed cost.

“8. The official channel of communication between the Supervising Architect and the Regents shall be an official to be determined upon by the Regents, and communicated by them to the Supervising Architect. It is agreed that the Supervising Architect is entitled to no fee from the Regents for any work undertaken on the campus unless the work has been authorized in writing by the officer above mentioned; and it is furthermore agreed that written instructions to the Supervising Architect from the officer above mentioned are official instructions from the Regents.”

On February 11, 1913, the Comptroller was designated by the Regents as the official channel of communication between the Supervising Architect and the Regents.

Tree-Planting Plan:

On February 11, 1913, the Committee on Grounds and Buildings reported that Mr. John McLaren had prepared plans for tree-planting in the portion of the University campus between the extension of Piedmont avenue and the east boundary of the University campus. These plans, having been worked out in conference with the Department of Botany, represent the point of view of both the landscape gardener and the botanist.

An appropriation of \$2500 was made from the Permanent Building Fund for tree-planting, trail-making, and other im-

provements in this portion of the University grounds east of the Greek Theatre. Thereupon more than twenty thousand trees were planted, representing a wide variety of species, and some ten thousand more assembled in a newly established tree-nursery so that they might be made ready for planting a season later.

Addition to the Infirmary:

An addition to the Infirmary was built during the year at a cost of approximately \$4500, as a charge against Infirmary fees. This addition was made necessary by the rapid growth of the number of students in the University.

Annex to the Chemistry Building:

An annex to the Chemistry Building was built during the year at a cost of \$7503.40; furnishings, \$1164.80; total, \$8668.20. A lecture room seating over 500 is its chief feature.

Building Work Contracts:

During the year building work contracts were approved by the Board as follows:

<i>Contract</i>	<i>Account to which chargeable</i>	<i>Contractor</i>	<i>Contract Price</i>
Oiling Roads and Paths on University Campus	Revenue	Blake and Bilger	Not to exceed \$500
Lighting Fixtures for Agriculture Hall	Permanent Building Fund	Fowler Mallett	\$1850
Tablet Arm Chairs for Chemistry Auditorium	Permanent Building Fund	William Bateman	\$4480
Pavement and Curbs at crossing of Seventeenth & Kansas Streets, San Francisco	J. Clute Wilmerding Endowment Fund	McGinn & Co.	\$244
Addition to Architectural Building	Permanent Building Fund	B. J. Duffy	\$9025.00
Roads and walks near Agriculture Hall	Permanent Building Fund	Contra Costa Construction Company	\$3200.00

President Wheeler's Services as Trustee for Mrs. Jane K. Sather:

On November 3, 1900, Mrs. Jane K. Sather deeded to President Wheeler property at the southwest corner of Washington and Fourteenth streets, Oakland, having a frontage of one hundred feet on each street and a like depth, in trust for various of her personal and beneficial purposes. President Wheeler discharged all the obligations of the trust, including the conveyance to the University of the funds for the Jane K. Sather Campanile,

for various University endowments, etc., and on February 11, 1913, the Regents passed resolutions relieving him from all further obligations in the matter of the Sather Trust.

It was reported by the chairman of the Finance Committee that President Wheeler had refused to accept any fees as trustee for the Sather Trust—fees to which he was legally entitled. A vote of thanks was extended to President Wheeler by the Board for his services to the University in the matter of the Sather Trust.

Segregation of the Sather Endowments:

On September 10, 1912, the Regents voted that \$526,789.72 of certain moneys received from Mrs. Jane K. Sather for various trusts be segregated as follows:

The Jane K. Sather Historical Chair Fund	\$100,000.00
The Jane K. Sather Classical Chair Fund	100,000.00
The Sather Historical Library Fund	12,461.68
The Jane K. Sather Campanile and the Sather Bells	225,000.00

Expended in connection with the Sather Trusts:

Payments made to President Wheeler, as Trustee, for payments in accordance with agreement with him, to beneficiaries	\$34,225.00
Street assessment on the property at Fourteenth and Washington streets, Oakland	8,000.00
Taxes on the property at Fourteenth and Wash- ington streets	2,902.64
Abstract for the property at Fourteenth and Washington streets	125.00

\$45,252.64

The Jane K. Sather Fund awaiting distribution: to be drawn upon for any further payments that may have to be made to beneficiaries, or for inheritance taxes, or for the completion of the Sather Gate, if more is needed for that purpose than the \$7,714.06 now on hand, or for anything in the nature of expenditures which would reduce the capital of the amount received from Mrs. Sather; what eventually remains of this unappropriated balance finally to be divided equally between the Jane K. Sather Historical Chair Fund and the Jane K. Sather Classical Chair Fund

44,075.40

\$526,789.72

It was voted, further, that the \$225,000 provided for the erection of the Jane K. Sather Campanile be treated as a fund and be invested in the Endowment Pool, subject to the terms mentioned in a later paragraph: and that the income accruing be added to the principal of the Jane K. Sather Fund awaiting distribution.

That when the Jane K. Sather Campanile and the Sather Bells have been completed any balance remaining in the fund of \$225,000 for this work be distributed equally between the Jane K. Sather Classical Chair Fund and the Jane K. Sather Historical Chair Fund. That the Jane K. Sather Fund awaiting distribution shall be invested in the Pool subject to the terms mentioned in a later paragraph; the income accruing shall be added to the principal of the Fund.

That the mortgage of the Beta Theta Pi Hall Association (\$7000), be treated as a specific investment for the Sather Historical Library Fund.

That \$5,461.68 of the Sather Historical Library Fund be placed in the Endowment Pool.

That the Jane K. Sather Classical Chair Fund and the Jane K. Sather Historical Chair Fund be placed in the Endowment Pool.

That the property at Fourteenth and Washington streets, Oakland, be treated as an investment of Endowment Pool moneys.

That any income of the Jane K. Sather Classical Chair Fund and the Jane K. Sather Historical Chair Fund remaining unused at the end of each fiscal year be added to the principal.

Sather Campanile:

On December 20, 1912, the making of plans and letting of contracts for the Jane K. Sather Campanile was authorized, subject to the understanding that the cost, including the elevator, but not the Sather Bells, the finish floors, nor interior trim, should not exceed \$200,000. This three hundred feet white granite bell-tower is to stand just west of Bacon Hall, on the former site of the flagstaff.

Appointment of Dr. Thomas Forsyth Hunt as Dean of the College of Agriculture:

On August 13, 1912, Dr. Thomas Forsyth Hunt was appointed Dean of the College of Agriculture, Director of the Agricultural Experiment Station, and Professor of Agriculture, to serve from October 1, 1912. In recommending the appointment, President Wheeler stated:

“It is understood that in coming here he undertakes this work with the distinct view of making this the first school of agriculture in the country, without any qualification or abatement. He says he should be attracted to this position because of what it means in a great agricultural state to undertake such a task. He thinks there is more hope here than elsewhere. Primarily he is attracted here because he thinks there is an opportunity of assembling the greatest teachers of Agriculture in the country here.”

Agreement with the Office of Experiment Stations:

On June 10, 1913, the Board ratified an agreement between the Agricultural Experiment Station of the University of California and the Office of Experiment Stations of the United States Department of Agriculture for co-operative experiments to determine the best methods and times of applying water to various crops, the best systems of crop-rotation under irrigation, the losses of water under present practice and the best methods of checking same, the best types of ditch structures, and the best methods of measuring the flow of water.

Pedigree Papers:

On December 20, 1912, it was voted by the Board that the Professor of Animal Industries be authorized to sign on behalf of the Regents all papers having to do with the pedigrees of animals belonging or which have belonged to The Regents of the University of California, such authorization dating from November 1, 1912, and that all such signatures of pedigree papers by the Professor of Animal Industries subsequent to November 1, 1912, be authorized and confirmed.

Wilmerding School:

On August 13, 1912, it was reported to the Regents that Director George A. Merrill is serving as director not only of the Wilmerding Trades School, but also of the California School of Mechanical Arts and of the Lux School.

Raisin Contract:

On March 11, 1913, the Regents authorized a three-year contract with the California Associated Raisin Company for the sale of the raisin crop of the Kearney Vineyard for 1913, 1914, and 1915.

Uniforms for the Military Department:

The contract for uniforms for the year 1913-14 was awarded to the C. J. Heeseman Company.

Lease on Property at Fourteenth and Washington Streets, Oakland:

On March 11, 1913, the Regents approved of a lease to Charles J. Heeseman and his associates of the property at Fourteenth and Washington streets, Oakland, received from President Wheeler as Trustee for Mrs. Sather. The terms of this lease were as follows:

“Rental at the rate of 6% per annum net (tenant, however, to be under no obligation for taxes) on a valuation, for the first two years and seven months, of \$500,000; for the next ten years of \$550,000; for the next ten years of \$600,000; for the next twenty years of \$650,000; and for the next ten years of \$700,000; insurance to an amount satisfactory to the Finance Committee to be carried by the lessee; the lessee to agree to begin, within two years after the expiration of the present lease, the erection of a Class A building to cost not less than \$350,000, the plans and specifications for such building to be subject to approval by the Regents; the lessee to deposit with the Regents securities satisfactory to the Finance Committee, these securities to be retained by the Regents until the lessee has completed the erection of a building on the property to cost not less than \$350,000; said building, as and when built, to be the property of the Regents and to remain the property of the Regents at the expiration of the lease; all the foregoing subject to such alterations and further details and covenants in form of lease as the Finance Committee may see fit to approve.”

Martin-Hammon Agreement:

On October 8, 1912, the Regents voted to terminate the agreement between themselves and Messrs. Martin and Hammon for the lease of a proposed hotel building on the lot on Sutter Street, San Francisco, owned by the University, this by agreement with the proposed lessees.

Broadway Terrace Tract Titles:

On April 8, 1913, the Board adopted the following resolutions:

“*Resolved*, That the Regents enter into an agreement with The Leckie-Abraham Title Company to indemnify it against any failure of title to the lots belonging to the Regents in the Broadway Terrace Tract, Oakland, occurring by reason of the suit

brought against the Regents by R. A. Caldwell and now on appeal to the State Supreme Court from the judgment dismissing such suit, in consideration of The Leckie-Abraham Title Company agreeing to issue to *Country Club Heights Company* a policy of title insurance insuring the title of the Regents, or the Country Club Heights Company as its successor in interest, to said lots, free and clear of said suit; and the President and Secretary of the Regents are hereby authorized to execute, on behalf of the Regents and in its name, and under its seal, a written contract to so indemnify The Leckie-Abraham Title Company. Said contract to be in a form approved by the Attorney for the Regents."

Subsequently the agreement was made with the Alameda Abstract Company instead of with The Leckie-Abraham Title Company.

Gifts to the University:

For a list of gifts to the University during the year ending June 30, 1913, see pages 167 to 195.

Degrees, Scholarships, and Military Commissions:

For a complete list of the degrees conferred on December 20, 1912, and May 13, 1913, and of the recipients of scholarships and of military commissions for 1912-13, see the Commencement Programme of May, 1913.

University Medal:

On May 13, 1913, the Regents voted to confer the University Medal, awarded annually to the most distinguished graduate of the year, on John Lowrey Simpson, of the College of Social Sciences.

DEAN OF THE SUMMER SESSION

BERKELEY, July 1, 1913.

To the President of the University,

SIR: The total enrollment at the summer session of 1912 was 2,275. This does not include the summer school of surveying. Of this number, 676 were men, 1,599 women. 1,805 came from California, and of the remainder, 414 were from thirty-nine other states, 12 from the Canal Zone, Alaska, etc., and 44 from fifteen foreign countries. 1,287 were teachers, 297 were college students, and 207 represented thirty other occupations. Unclassified 421. The complete statistics of the summer session of 1913 have not yet been compiled, but the total enrollment was 2,462, an increase of approximately 200 over the previous year.

It has been the policy of the summer session committee for several years to ascertain as carefully as possible what courses will most effectively meet the needs of the students who attend the summer term. At the close of each session, several hundred letters of inquiry are sent out to those students who, because of the high standing in their classes, or the important positions that they occupy in the state, might properly be consulted in planning the programme of the next summer session. They are asked to tell which of the courses they selected they found most interesting and profitable, and which perhaps did not meet their needs and expectations so well. Thus our programme each year is arranged very largely on the principle of initiative and referendum. Some justifiable criticism has been made upon the character of the courses thus offered; but a recent visit to a number of the best institutions in the East warrants me in saying that we are well to the front among the summer schools of the country.

One demand that has been made upon us we have not been able to meet adequately, the demand, namely, for advanced work for graduate students. There are two reasons for this: in the first place, since our summer session must be practically self-supporting, it has not been possible to finance any large number of such courses. Then many of the departments feel that the seminar work for the master's degree cannot be accomplished in the short period of six weeks. Some departments propose in the future to offer opportunity for seminar work by listing courses which must be pursued for two continuous summer sessions, with *in absentia* work during the intervening year. In this manner, work of a very high order can doubtless be accomplished, since much of the textual work in the languages, or field work in the natural sciences, can be carried on away from the University.

Respectfully submitted,

C. H. RIEBER,

Dean of the Summer Session.

WILMERDING SCHOOL

SAN FRANCISCO, July 1, 1913.

To the President of the University,

SIR: The trend of industrial education during the past few years has been more and more in the direction of the intermediate pre-vocational school. Adjustment of the middle grades of our school system to meet the needs of the masses is going on, in one form or another, in many parts of the country. Different states and different communities have attacked this problem, each in its own way, the prevailing sentiment being in favor of that sort of a curriculum which will give the boy of sixteen or seventeen a good measure of industrial intelligence and which will give girls of the same age a first-hand acquaintance with the essential things of a well-ordered home. In each case industry and intelligence are coming to be held as of equal importance, because neither can replace the other. Argument on the relative importance of academic and industrial branches has given way to consideration of ways and means of embodying both in the curriculum in their proper, reciprocal relations.

In line with this general movement the Board of Education of San Francisco has recently decided to reorganize the upper grades of three of its principal grammar schools, with the expectation of developing from them a group of intermediate schools that will be largely of an industrial character.

These developments in the general field of industrial education are reviewed in this report because of their bearing on the future of the Wilmerding School. In my biennial report of July 1, 1908, I made mention of the unfortunate grouping of the grades of the public school system from the viewpoint of

industrial education, pointing out that it would be better if the Wilmerding School could admit boys either two years older or two years younger. Rather than interrupt our articulation with the grammar school, which might not have been feasible and which would have deprived many boys of their grammar school diplomas, we have maintained a two-year preliminary course for those who have not wished to begin a definite apprenticeship immediately upon entering the school. Henceforth, by co-ordinating the work of our two first years with the instruction proposed to be given in the seventh and eighth grades of the San Francisco public schools, it becomes possible thereby to make up the equivalent of a four-year pre-vocational curriculum. I would therefore recommend that hereafter intermediate diplomas be granted by the Wilmerding School to boys who shall have completed the work of our first two years, the full diploma being granted, as heretofore, to those who continue in the school two years longer, for the completion of an apprenticeship.

The granting of an intermediate diploma will have a distinct advantage for the boy who receives it, because of another important development of recent years, viz., the movement for the vocational guidance of youths, which is intended to assist boys in the choice of future occupations and in finding suitable places. The average age at which the intermediate diploma will be granted is between sixteen and seventeen, which is the most favorable age for such boys to begin the trades for which we will have given them the preliminary training.

Our principal province has always been the teaching of the building trades, of which bricklaying has been regarded as one of the most fundamental. In recent years, however, bricks and mortar as materials of building construction have given way to cement to a large degree, and since it is incumbent upon us to keep pace with modern tendencies, we have planned to increase the instruction given in artificial stonework and in concrete construction, including the various methods of reinforcing and fire-proofing buildings; methods of water-proofing; construction of concrete tanks, walks and garden furniture; use of concrete on the farm, etc. Having completed the brickwork on our new build

ing, the time is opportune for reducing the volume of instruction in that line, which henceforth will consist largely of the construction of chimneys, fireplaces, foundations, brick walks, etc.; methods of facing buildings with bricks; styles of bonding, etc.

During the past year the Lux School of Industrial Training has joined forces with us, having entered into an arrangement with the Lick and Wilmerding schools whereby all three schools are placed under the charge of the same director, with an assistant director or dean for each school. The Lux Endowment is the gift of the late Miranda W. Lux and amounts approximately to a million dollars. Most of the girls formerly enrolled in the Lick School have been transferred to the Lux School, for which a new building is now nearing completion. It is hoped that the organization of the Lux School, with an enrollment consisting entirely of girls, leaving the Lick School mainly for boys and the Wilmerding School entirely so, and all three in equal relations, will have a favorable influence on the Wilmerding School, where the entire absence of a feminine element in the past has been something of a misfortune from the viewpoint of the spirit and tone of the school.

Our enrollment for the school year 1911-12 was 220, and for 1912-13 it was 210.

Respectfully submitted,

GEO. A. MERRILL,

Director.

DEAN OF WOMEN

BERKELEY, July 1, 1913.

To the President of the University,

SIR: I have the honor to present the following report upon the work of the office of the Dean of Women for the year 1912-13:

The largest group of women ever registered as intrants at the University presented themselves at this office during the last two weeks of August, 1912. The adjustment of so many individuals is a problem which has not yet been satisfactorily solved. Beginning last August, a system of advisors was inaugurated which, centering in the office of the Dean of Women, attempted to reach and influence helpfully the academic, social, and physical life of the entering women. A corps of twenty graduates, each commanding the services of four or five seniors, was appointed for the work. From this office a group of new students was assigned to each graduate advisor, who was equipped to help in the choice of courses of study, the distribution of hours, and the planning of study-lists. The graduate advisor in her turn assigned a group to each of the seniors working with her. The senior advisor called upon the new students for whom she thus became responsible and acquainted herself with the living conditions of each one, whether she was at home or with relatives or in a boarding-house which might be approved by this office. If a readjustment of the boarding-place proved necessary, the senior advisor undertook through the women's boarding-house committee to effect a change. In a large number of cases the boarding place, though not on the published list of approved houses, satisfied the requirements for approval, and the senior

advisor accepted it provisionally pending official inspection. In no case did the graduate advisor pass on a student with her study-list for final approval at this office till the senior advisor could make a satisfactory report on the surroundings of the student in question.

This system is by no means ideal. The great number both of new students and of graduate and senior advisors makes thoroughness hard to attain. Nevertheless the result last year warrants faith in the conscientious work of the student advisors and justifies continuing the plan for at least another year. The graduate advisors were paid twelve dollars each for their work, which required some careful preparation and the keeping of regular office hours during the first two weeks of the academic year. Within the first three weeks of the year their duties ceased. The seniors, however, kept up friendly and social relations with their charges throughout the year, reporting on their work twice during each term to this office and to the chairman of the senior advisory committee. It is understood that the activities of the senior advisors are purely friendly and social, not disciplinary. No authority is delegated to the seniors by the student government committees and no records of scholarship are officially confided to them. Their hands are more than full if they make the expected effort to help each new student to find her happy and effective place among her companions.

In connection with these two advisory committees the women's boarding-house committee has done efficient work. There are five members who, after the University inspector from this office has visited and approved certain houses for women, acquaint themselves with each available house, make diagrams of the rooms and have at their tongues' ends all details of interest to the boarding-house seeker. During the first week of each term the committee has held office hours for six hours daily. Throughout the year the members have been busy preparing diagrams, suggesting new boarding places for inspection and helping in every way to establish and maintain just and friendly relations with the boarding-house keepers, to many of whom we owe much of the comfort and contentment of our women students.

Two years ago the Associated Women Students requested that no freshman woman be allowed to complete her registration at the University unless her boarding place be approved by this office. For the past year the responsibility of carrying out this request in stubborn cases has rested with the Women's Undergraduate Student Affairs Committee, and in their hands the number of stubborn cases has steadily diminished. It has also been due to the commendable zeal of the boarding-house committee that many changes have been effected amicably. As these instances show, every opportunity has been taken to throw responsibility on and place faith in student government. The result has always been encouraging.

Housing the women students, as the foregoing details suggest, is one of the constant problems of this office. The publication of a list of boarding places approved, after careful inspection, each term, by the University has done something toward creating a better standard of living conditions. College Hall has lived and learned through its fourth year and is in many ways an excellent example of what may be done with a large group of women under student government. Its influence is necessarily limited by its capacity and by the price of room and board which to many students is prohibitive. Then, too, its relation to the University as merely an approved boarding-house, although sponsored unofficially by the Dean of Women, is open to much annoying and futile misunderstanding. The Campus House, while affecting a much smaller group, has proved the possibility of frugal and comfortable living on a basis of co-operation in the work of the house. These two experiments, however, help to indicate what might be done for our women were the means forthcoming. As conditions are at present, it is fair to say that many young women pass four or even five years at the University without gaining anything of the gracious refinement which only well ordered life in a gently directed household can give. It is to be hoped that the need of these women who go out to represent the University will not be too long overlooked.

The women students are still to a great extent a loosely organized and indifferent group. Many are living in their own

homes, where their time and interest are justly demanded even at the expense of "college life." Many others who are self-supporting are without time or energy or interest for anything beyond their personal needs and ambitions. There is, however, a slowly increasing esprit de corps among them, fostered largely in the past year by two new factors in their life, Senior Women's Hall and the Partheneia.

Senior Women's Hall is now an established meeting place and council chamber, where even the woman who lives at home or works for her living may take her lunch, meet friends and companions, and keep in touch with all matters of student interest while she herself helps to strengthen senior control, student welfare, and public opinion. No senior can participate in the privileges of the hall without a sense of the responsibility she shares.

The Partheneia was celebrated for the second time in April, 1913. Any woman at the University may compete in composing for this festival and any woman may take part in the performance. The result, in the two performances already given, has been a contribution of real beauty to the life of the campus. This has not failed to show its influence in increased self-respect and increased eagerness among the women to work effectively together.

This office has sought close co-operation with the Infirmary and with the women's gymnasium. A report on the general health of each woman examined at the Infirmary is sent to this office and in special cases reports are sent from the gymnasium. Through these reports an attempt has been made to regulate study somewhat with reference to physical ability, to the end that there shall be fewer breaks in health and a higher average of scholarship.

The nineteen women's house clubs and fraternities and I have felt that we were not sufficiently well acquainted. We have, therefore, held meetings through the year either at this office or at my home of the junior and senior members of the different houses. The discussion has been of the general and individual problems of such groups. The meetings have been of value to me and I believe they have also helped to a better understanding

between these small organizations and the greater student organizations.

In connection with the women's house clubs and fraternities Mrs. Jaffa has conducted meetings of student house-managers with the somewhat dim hope that a system of co-operative buying might be evolved. At present, with the strong disposition toward individuality and variety, the difficulty of storage and delivery, and the willingness of each group to pay a good price for the conveniences offered by nearby retail dealers, it is not likely that any scheme can be made successful. At any rate I believe that co-operative buying for these houses cannot be successful, unless an expert is employed for the work of organization. In the meantime Mrs. Jaffa's work in the direction of better living on the amount of money expended, her suggestions as to menus, the selection and preparation of food, have been invaluable and eagerly accepted.

This office should to a large extent deal with individual needs. I have, therefore, held office hours, open to calls of all kinds, for three hours five days in the week, and it has been understood that my home was open at times other than office hours to individual students or to small groups for conference. My assistant also has been in the office for conference two hours five days in the week. I am glad to report that this part of my work increases steadily. At the same time I must call attention to the fact that its increase has entirely outgrown our office space, with much resulting personal embarrassment and waste of time. The work has also outgrown the assistance at present available. I do not intend to duplicate any of the work of the Recorder's office or to become, except in the slightest sense, a keeper of records. Yet the mere gathering of telling information on which to base judgment, and the routine correspondence, is more than can be handled thoroughly by two persons.

Beside being an honorary member, advisor or arbitrator on the various committees representing student government among the women, I have served during the year on five of the standing committees of the University, where I have endeavored to take my place not as an advisor to the women but as a partic

pant in the common interests and needs of the University. I have found this service valuable personally and I hope it may ultimately prove its wider value. My teaching during the last year, for two hours a week, has also proved a valuable balance of interests.

In order to keep in touch with the general problems of the education of women, I have corresponded with many of the deans of women at other universities and colleges. I have also followed with interest the progress of any movement tending to enlarge the scope of the educated woman's usefulness as a wage-earner. There is no doubt that with well-directed stimulus from the various departments of the University our women will cease to become teachers inevitably, and in some cases unwillingly, and will find teaching one of several avenues to self-support and service open to them.

Respectfully submitted,

LUCY WARD STEBBINS,
Dean of Women.

CALIFORNIA MUSEUM OF VERTEBRATE ZOOLOGY*

BERKELEY, July 1, 1913.

To the President of the University,

SIR: The year's work of the California Museum of Vertebrate Zoology has been conducted in close accord with the plans heretofore outlined. The funds provided by Miss Annie M. Alexander have served for the continuance of all lines of work already under way, and even to inaugurate new activities, as indicated beyond.

Field-work was continued through the summer of 1912 in the Sacramento Valley, and was resumed in May, 1913, in the coast district north from San Francisco Bay. A party of four is now at work in Mendocino County, reports received indicating unexpected discoveries in the mode of occurrence of certain little-known species of rodents. Our records of the distribution of mammals, birds, and reptiles within the state are being steadily augmented by our consistent programme of field work, so that in many cases we are now able to chart with fair certainty the ranges of the species in question. This line of inquiry can be met only by detailed exploratory work such as is made possible under the policy which determines the activities of the museum.

There have been 176 accessions during the year, varying from single specimens to as many as 1,594 from one source. The latter number resulted from the Sacramento Valley explorations. The greater part of the specimens catalogued during the year were obtained by the museum's field parties. But an increasingly

* See list of gifts to the California Museum of Vertebrate Zoology p. 191.

large proportion have been received by donation from various sources, as itemized in the report of gifts, presented under another heading (see page 00). These gifts often comprise material of unique scientific value, since the donors have in many cases been aware of the weak places in our series and have embraced opportunities to fill them in accordingly.

On June 30, 1913, the museum contained, as property of the University, the following catalogued specimens: mammals, 19,203; birds, 23,513; sets of birds' eggs, 1,370; reptiles and amphibians, 4,786. The total number of specimens catalogued to date is 48,872, or a gain of 5,925 during the past twelve months. Each catalogue entry indicates either a mammal, a bird, a reptile or amphibian, or a set of birds' eggs, as defined beyond (see page 00).

There have been 52 loans of scientific material during the year, aggregating 1,103 specimens. Among those investigators outside of our own vicinity who have borrowed material pertaining to their fields of research are the following: Mr. Robert Ridgway, United States National Museum; Dr. Casey A. Wood, Chicago; Dr. R. W. Shufeldt, Smithsonian Institution; Mr. H. W. Henshaw, Biological Survey, United States Department of Agriculture; Mr. J. D. Figgins, Colorado Museum of Natural History; and Dr. C. Hart Merriam, United States Department of Agriculture.

It is not to be inferred that unusual facilities are extended to workers at a distance. For we do our best to make our material freely available without partiality. Various departments in our own University, including both students and professors, have made use of specimens during the year.

The museum has lost the services of Mr. Harry S. Swarth, formerly curator of birds, he having accepted in March the post of assistant director of the new Museum of History, Science, and Art, at Los Angeles. Through the provision of a friend of the University, who for the time being desires that his name be withheld, we have been enabled to fill this vacancy in our staff. Dr. Harold C. Bryant accepted the position of assistant curator of birds on June 1, 1913, and, as prescribed in the foundation, will

concern himself chiefly with a study of the game birds of California, with special reference to the problems of game conservation. This work has been undertaken in collaboration with the director, and it is planned to continue it for two years, or until such time as the results warrant publication.

-As in line with the usefulness of the museum, it was decided in the late summer of 1912 to inaugurate, and participate actively in, a movement for the conservation of game animals in California. The field for this sort of work opened up just at this time because of the impending session of the Legislature. There seemed to be opportunity here to contribute towards informing the public of the great depletion of the supply of game in the state and of the needed revision of our laws so that the annual tariff levied by hunters on our game resources could be reduced to somewhere near the normal rate of production.

With this plan in view, the time of Mr. Walter P. Taylor, curator of mammals, was largely occupied during the winter in organizing the California Associated Societies for the Conservation of Wild Life, in putting out articles and circulars relating to game conditions and needed changes in the laws, and in informing the public. It is believed that as a result of this activity much good was accomplished, both in the way of popular education and as regards legislation.

The museum's bibliography during the year includes a larger proportion of non-technical articles than heretofore. This has resulted from the efforts to influence popular opinion towards a saner consideration of our game resources by making generally known the present status of our game animals, this being, of course, a necessary part of the conservation campaign.

Respectfully submitted,

J. GRINNELL,

Director.

GIFTS TO THE UNIVERSITY*

GENERAL LIST†

Ackermann, Charles L., oil paintings and pastels of his great-grandfather, Johann Christopher Ackermann, born February 26, 1726, and of his grandmother, Maria Christina Goepplein, born February 15, 1740; pastels of the second wife of Johann Ackermann (records lost) and of the grandfather of the donor, Carl Ludwig Wilhelm Ackermann, born December 14, 1774, died June 19, 1826; miniatures of the grandfather, Carl Ludwig Wilhelm Ackermann and of the grandmother, Caroline Geyer, born November 13, 1790, died December 23, 1853; miniatures of the great-granduncle of the donor, Ludwig Geyer, born 1764, died 1832, and of the great-grandaunt, Marianna Geyer, née Tripp, born 1768, died 1828,—these two framed together; a silhouette of Carl Ludwig Wilhelm Ackermann; and an autograph album owned by Carl Ludwig Ackermann while a student at the University of Marburg, Germany, in the latter part of the eighteenth century.

Agassiz Estate, Alexander, \$300, received in March, 1913, as a donation toward salary for an Agassiz Research Assistant in Zoology.

Alameda County Law Library, the records in 486 cases before the Supreme Court of the State of California, between 1890 and 1906, for use in the library of the School of Jurisprudence.

Alexander, Miss Annie M., support for the California Museum of Vertebrate Zoology at a rate which has exceeded \$8,000 per annum.

Alumnus, An, \$4,000, to be used in part for the immediate purchase of books in history and as to the balance for library endowment.

Associated Students of the University of California, property at the corner of Sylvan way and College avenue, valued at approximately \$30,000, and an offer to construct at their own cost a track and bleachers on the property at Barrow street and Bancroft way.

* Compiled by the Secretary of the Regents from the official records.

† For gifts to the University Library see p. 61.

Berry, R. A., five volumes of Judge Coffey's Probate Decisions, for the library of the School of Jurisprudence.

Bonnheim, Albert, \$145 for the annual Bonnheim Discussion Prizes.

Botsford, Dr. Mary, an Ohio Monovalve for gas and oxygen anaesthesia.

Bourn, W. B., \$500 for the work of the Academy of Pacific Coast History.

Bowles, Regent P. E., two lions in Carrara marble as decorations for the entrance staircase of the president's house.

Bowles, Regent P. E., \$300 in support of the palaeontological excavations at Rancho La Brea.

Britton, Regent John A., \$50 in support of the palaeontological excavations at Rancho La Brea.

Brobeck, W. I., seven volumes of Thompson on Negligence for the library of the School of Jurisprudence.

Brownsill, Mrs. D. S., the skin of a cassowary from Dutch New Guinea.

Camp, Charles L., a collection, to be placed in the California Museum of Vertebrate Zoology, of 592 reptiles and amphibians gathered by the donor in various parts of Central and Southern California, together with other specimens of value.

Carmany, Miss Mary A., a collection of over eight hundred specimens of minerals and ores, assembled by her brother, the late J. H. Carmany, editor of the Overland Monthly from 1870 to 1875, and later a mining engineer in Lower California and Nevada.

Carnegie Foundation, various retiring allowances for professors and for widows, now at the rate of about \$14,000 a year.

Cebrian, J. C., a collection of Spanish books, consisting of 515 volumes, as an addition to the Cebrian collections already given to the University. Included in the gift were many works in history, linguistics, architecture, painting, and music, with valuable works of the celebrated Spanish composers of the sixteenth and seventeenth centuries. Among the old books were a score of volumes of the seventeenth and eighteenth centuries, with admirable engravings; sixteenth century volumes; two incunabula with illustrations; an almanac of 1505, with the predictions of eclipses for thirty years; two works of the seventh century, at the time of the Gothic kingdom in Spain; a fine copy of the first Dutch bible, a fine specimen of Dutch printing and book-craft of the seventeenth century, in a remarkable binding, with ornamentation in silver; and a thirteenth century Italian manuscript, a Breviarium Romanum, on very fine vellum, of over 400 pages, written in three colors.

Class of 1881, through its treasurer, Mr. Louis Sloss, \$50 as an addition to the Class of 1881 Loan Fund.

Class of 1897, \$1,005 as an endowment for "The Loan Fund of the Class of 1897." A letter written by Miss Annie Florence Brown, '97, in behalf of the class, said:

"We desire to place no conditions or restriction upon this fund that would impair its usefulness, yet we suggest that it should be handled in such a way as to be of the greatest service to the students concerned without impairing the principal of the fund, although we are aware that through misfortune of beneficiaries or causes of like character such impairment may become an incident to such a fund as this. It is the intention of the class committee, however, to endeavor to augment the fund in the future whenever possible. We suggest that it would be very satisfactory to the class to have the fund handled by a committee of three persons, which would include the President of the University, the Recorder of the University and the Dean of the Women Students; it being understood that said committee have full charge of the fund, the selection of beneficiaries therefor, and the right to impose such conditions on the loaning of said fund, including an interest charge therefor in their discretion, as may seem to them right and proper under the circumstances of any particular case.

"We desire further to state that the plan above outlined is merely a suggestion, and if at any time the President and your Honorable Board consider it more advantageous to the University to use the fund for any other purpose than the one proposed, we should be glad to be advised by you of your conclusions or wishes in the matter. We therefore place the fund in your hands with the hope that some earnest student or students of our Alma Mater may be able to enjoy or more fully enjoy the advantages which the University so amply affords."

The Regents on April 8, 1913, voted to follow the suggestions of the class in the administration of the Loan Fund of the Class of 1897.

Class of 1912, \$1,900, as endowment for the Class of 1912 Fund, subject to the following conditions:

(a) The Regents to be at liberty to include this money in the Endowment Pool or to invest it otherwise, as they may see fit.

(b) The income of the endowment to be paid semi-annually to the permanent secretary of the class, this income to be used by the class for the purpose of permanent organization.

(c) The class to have the privilege of withdrawing this fund upon written notice given six months in advance.

(d) If at the time of such withdrawal the fund be invested in definitely specified securities, then the Regents to have the option of turning over to the officers of the class either the securities or the amount of the fund in cash.

(e) The fund to be subject for withdrawal only for the establishment of a memorial in some way approved both by the class and the Regents.

Crocker, Regent William H., a guarantee of the expenses, up to \$5,500, of an expedition from the Lick Observatory to observe the total eclipse of the sun occurring on the afternoon of August 21, 1914.

Crocker, Regent William H., \$550 in support of the palaeontological excavations at Rancho La Brea.

Dalrymple, Dr. W. S., forty-five bound volumes of dental journals for the library of the College of Dentistry.

Deere Plow Co., John, one 1G Dunham pulverizer, to the Department of Agriculture, for use in experimental work with field crops at the University Farm.

Dental Department Faculty members, including Drs. Hodgen, Bean, Tufts, W. F. Sharp, and Dean J. G. Sharp, \$400 toward the salary of the instructorship in Prosthetic Technics.

Dohrmann, Regent F. W., \$50 in support of the palaeontological excavations at Rancho La Brea.

Drake, Mrs. Maria S., six boxes of shells, of much value in comparative work in palaeontology.

Drexler, Mrs. Elise A., \$200, the first contribution toward her endowment of four beds for cancer cases in the University Hospital.

Farquhar, Mrs. M. A., nine bound volumes of the New York Tribune, covering the Civil War period—1861 to 1865.

Foster, Regent A. W., \$100 in support of the palaeontological excavations at Rancho La Brea.

France, the Republic of, the following works, presented through the Minister of Public Instruction: *Exploration scientifique de la Tunisie*, by various authors; *Atlas archéologique de la Tunisie*, by various authors, parts 1 to 14; *L'Afrique byzantine*, by Diehl, 1 volume; *Recherches archéologiques en Algérie*, by Gsell, 1 volume; *L'Armée romaine d'Afrique*, etc., by Cagnat; *Histoire littéraire de l'Afrique chrétienne*, by Monceaux, 4 volumes; *L'Afrique chrétienne*, by Menage, 1 volume; *Fastes des provinces africaines*, by Pallu de Lessert, 2 volumes; *Géographie comparée de la province romaine d'Afrique* by Tissot, 2 volumes; *Mission scientifique au Mexique et dans l'Amérique centrale*.

Friend, A., \$605 for the remuneration and expenses of Miss Mayde Hatch, assistant in physical culture, who had charge of the dances in the Partheneia of 1913.

Gaelic League of California, \$150 for the purchase of Celtic books.

Grange, California State, an offer to provide for one or more scholarships in the Agricultural Department of the University, to be known as the "State Grange Scholarships," to be of the annual value of \$200 and open to any fourth degree member, applications to be made to the secretary of the local grange.

Hearst, Regent Phoebe Apperson, offer of a gift of \$1,000 per annum to increase the salary of S. B. Christy, Professor of Mining and Metallurgy, to \$5,000 per annum.

Valuable additions to the equipment of the eHearst Memorial Mining building.

Various gifts for the Mining Museum.

A contribution of \$1,000 per annum toward the salary of the Professor of Architecture as Supervising Architect.

Maintenance for the Hearst Scholarships for 1912-13, at the rate of \$2,400 per annum.

Contributions towards the maintenance of the vast collections in the Museum of Anthropology.

Defrayment of the cost of improving the grounds about the Hearst Memorial Mining Building.

Hooper, Mrs. George Williams, property now valued at much more than a million dollars as endowment for a School for Medical Research, to be known as The George Williams Hooper Foundation. It is expected that the eventual endowment will reach two millions.

On May 13, 1913, J. F. Bowie appeared before the Board as representing Mrs. Hooper. He delivered to the Board a deed from Mrs. Hooper conveying to the Regents a large area of timber lands in Humboldt county.

The Finance Committee then presented the following report on the matter:

"Your Finance Committee has the honor of recommending that the appended agreement, providing for the establishment of the George W. Hooper Foundation for Scientific Research in Medicine, be approved, and the Chairman of the Finance Committee and the Secretary of the Board be authorized and instructed to execute such documents for the consummation of an agreement for this Foundation as may be approved as to form by the Attorney of the Board."

This report of the Finance Committee was approved and thereupon the following agreement was executed by the Chairman of the Finance Committee and the Secretary of the Board, in behalf of the Regents:

“Declaration of Trust

“WHEREAS, Sophronia T. Hooper has this day executed and delivered to The Regents of the University of California, a corporation of the State of California, hereinafter styled ‘The Regents,’ a deed to certain real property situate in the County of Humboldt, State of California, which property is more particularly described as follows, to-wit:

“The southwest quarter of section one (1); the south half of the southwest quarter of section two (2); the southeast quarter of the southwest quarter, and the southwest quarter of the southeast quarter of section ten (10); the east half, and the east half of the northwest quarter of section eleven (11); the northwest quarter of section twelve (12); section thirteen (13) entire; the north half of the northeast quarter and the southwest quarter of section fifteen (15); the north half of the northwest quarter, and the northeast quarter of section twenty-two (22); the south half of the northwest quarter, the west half of the southwest quarter, the southeast quarter of the southwest quarter and the southwest quarter of the southeast quarter of section twenty-three (23); the north half, and the north half of the southwest quarter and the west half of the southeast quarter of section twenty-four (24); All in township three (3) north, range one (1) east, Humboldt Meridian. ALSO: Lots three (3) and four (4) of section eighteen (18); lots one (1) and two (2) of section nineteen (19); all in township three (3) north, range two (2) east, Humboldt Meridian.

“The northeast quarter of section eighteen (18); the southeast quarter of section twenty (20); the west half of section twenty-one (21); the north half of the northwest quarter of section twenty-eight (28); the north half of the northeast quarter of section twenty-nine (29); All in township four (4) north, range one (1) east, Humboldt Meridian. ALSO: All of section sixteen (16) in township three (3) north, range one (1) east, Humboldt Meridian.

“AND WHEREAS, said deed was made and delivered to and accepted by the Regents upon certain terms, conditions and trusts not embodied therein, but hereinafter set forth;

“Now, therefore, for the purpose of evidencing and setting forth the terms, conditions and trusts upon which said deed was made, delivered and accepted, the Regents do hereby acknowledge and declare:

“That said property was conveyed to, and accepted by, the Regents in trust to sell and dispose of said property (subject to the conditions and provisions hereinafter set forth) and to devote the funds realized from such sale, (subject to the deductions here-

inafter mentioned), to the foundation and endowment of a School of Medical Research to be known as the "GEORGE WILLIAMS HOOPER FOUNDATION," which shall be conducted and maintained in San Francisco, California, and shall be managed as a department of the University of California, subject, however, to the regulations herein contained. The net income of the endowment fund shall be expended in the maintenance and conduct of said School of Medical Research, which shall conduct and carry on investigations in the sciences and arts of hygiene, medicine, and surgery; also in the nature and causes of disease and in the methods of its prevention and treatment, and shall disseminate gratuitously all knowledge so acquired.

"The work to be done within the purposes hereinbefore mentioned, by said School and by the investigators therein engaged, and compensation to be paid to said investigators, shall be such as may be prescribed by a Board to be known as the Directors of the Foundation, which said Board shall consist of such persons as shall, for the time being, occupy the following offices:

"The President of the University of California;

"The President of the Carnegie Foundation for the Advancement of Teaching;

"The Professor of Pathology of Johns Hopkins University;

"The Dean of the Medical School of the University of California.

"In addition to the four members above provided for, there shall be three other members of said Board, one of whom shall be appointed from time to time by the Regents upon the nomination of the President of the University of California. The term of office of the person so selected by the Regents shall be for one year. Another of said memberships shall be filled by a person appointed by the President of the Carnegie Foundation for the Advancement of Teaching. Such person so appointed, and his successor, shall be appointed for such term as the President of the Carnegie Foundation for the Advancement of Teaching may specify at the time of his appointment. The remaining membership shall be filled by E. D. Conolley during his lifetime.

"In the event of the refusal of any person hereinabove named to act on said Board, the vacancy thereby created shall be filled as follows:

"The President of the Carnegie Foundation for the Advancement of Teaching, the Professor of Pathology of Johns Hopkins University, and the person appointed by the President of the Carnegie Foundation for the Advancement of Teaching are herein described as the eastern members of the Board of Directors and in the event

that any of said persons fail or refuse to act the vacancy shall be filled by the person selected by such of said eastern members as shall elect to act; provided, however, that notwithstanding such vacancy is so filled, the officer designated as entitled to act shall, if he be willing at any time to assume such duties, notify the Board of Directors of such fact, and shall thereupon supersede the person appointed to fill the vacancy.

“The President of the University of California, the Dean of the Medical School of the University of California, the person appointed by the Regents, and E. D. Conolley and his successor or successors, are hereby designated the western members of said Board, and in the event that either the President of the University or the Dean of the Medical School of the University of California fail or refuse to act, the vacancy shall be filled by the person selected by such of the western members as shall elect to act; provided, however, that notwithstanding such vacancy so filled, the officer designated as entitled to act shall if he be willing at any time to assume such duties, notify the Board of Directors of such fact, and shall thereupon supersede the person appointed to fill the vacancy.

“Upon the death of E. D. Conolley, or the expiration of the term of his successor appointed as herein provided, the vacancy so occasioned shall be filled by such persons as may be selected by the other western members of the Board of Directors then acting, provided that the successor of said Conolley shall be appointed to serve for the term of ten years.

“The investigators employed in the said School shall be appointed by the President of the University of California, but the persons so appointed shall be selected and chosen from persons recommended by the Board of Directors, and not otherwise. It shall not be necessary for said Board to hold meetings, nor shall the attendance of any member at its meetings be necessary in order to entitle him to vote on any proposition coming before said Board, but the vote of every member on any proposition coming before the Board may be cast by letter addressed to the Dean of the Medical School of the University of California, and a reasonable opportunity allowed each director to express his views.

“As the terms and conditions of said deed to the Regents, the Regents covenant and agree as follows:

“1. To assume the indebtedness of \$307,500 secured by a mortgage on the property so conveyed to it; to pay all interest which shall accrue thereon or the payment of which shall become due after this date, and to protect said property against its foreclosure, and to hold harmless and free from liability on account of said indebtedness Sophronia T. Hooper and her predecessors.

"2. To pay such taxes on the property above described as by law they may be required to pay.

"3. Not to sell or dispose of the said property or any part thereof within four (4) years from and after the date hereof at less than the rate or price of four (\$4.00) dollars per thousand for each thousand feet of timber standing thereon.

"4. It is hereby declared that the property transferred is of the clear value of One Million (\$1,000,000) Dollars over and above the indebtedness charged thereon. Pending the sale of said property, the Regents agree to pay and make available for the immediate organization of said School and its support and maintenance thereafter, the sum of Fifty Thousand (\$50,000) Dollars per annum from date hereof until such sale, which Fifty Thousand (\$50,000) Dollars per annum shall be paid and applied toward the purposes of said foundation as though said property had been sold and said sum had accrued as the net income on the net proceeds of such sale; Provided, however, that in the event that the Regents shall, after the expiration of four years, be able to dispose of said property for a price of Four (\$4.00) Dollars or more for each thousand feet of timber standing thereon, and shall nevertheless elect not to sell the same, then and thenceforth, until such property is sold, the Regents shall pay and make available for the support and maintenance of said School, in lieu of said sum of Fifty Thousand (\$50,000) Dollars hereinbefore provided for, the sum of One Hundred Thousand (\$100,000) Dollars annually. Upon and after the expiration of said four years, the Regents are authorized and empowered to sell said property for the reasonable market value thereof, and, if the price of Four (\$4.00) Dollars per thousand for each thousand feet of timber standing thereon cannot be then obtained, the Regents may, nevertheless, sell the property at such reasonable value as may be obtained therefor. Upon said property being sold, the Regents shall be reimbursed, with interest at the rate of Five (5%) per cent per annum from the proceeds of the sale, for the advancement of the following sums:

"(a) All moneys laid out and expended by the Regents in connection with caring for, preserving, managing and disposing of said property; and paying taxes thereon;

"(b) All moneys laid out and expended by the Regents in paying interest upon the indebtedness now secured by said property, and in discharging the principal amount of said indebtedness if the same has been discharged;

"(c) All moneys paid for the organization, support or maintenance of said School, pursuant to the provisions of this declaration.

“The net proceeds, after deducting the amounts necessary for the reimbursement of the Regents, as aforesaid, shall be and constitute the Endowment Fund of said School, as hereinbefore provided, subject, however, to the following condition: That, if said net proceeds exceed the sum of Two Million (\$2,000,000) Dollars, then Two Million (\$2,000,000) Dollars thereof shall be and constitute said Fund, and the excess over and above Two Million (\$2,000,000) Dollars shall not be a part of said Endowment Fund unless The Regents see fit to make it so; and if the Regents do not so see fit, then such excess shall be devoted to the general purposes of the University of California in such manner as the Regents deem wise. The property above mentioned and described may be sold in whole or in part, in the manner and on such terms as the Regents may elect, subject to the express trusts, terms and conditions herein contained.

“The provisions of any and all of the terms, conditions or trusts herein expressed may be modified by subsequent agreement between Sophronia T. Hooper and the Regents, and in the event of the death of said Sophronia T. Hooper, between E. D. Connelley and the Regents.”

At this meeting of the Board on May 13, 1913, in behalf of the Regents the Chairman and the President of the University voiced the thanks of the Board. It was voted that President Wheeler be requested to call upon Mrs. Hooper and in behalf of the Board to speak its appreciation of her splendid benefaction for the welfare of mankind.

It was voted that the thanks of the Board be extended to Henry Smith Pritchett, President of the Carnegie Foundation for the Advancement of Teaching, to Mr. J. F. Bowie, to Mr. E. D. Conolley, and to Mr. Oscar Beatty, “for the aid they have given to the advancement of medical science and the sympathy they have shown with the aims and purposes of the University of California in connection with the development of the plans for the George Williams Hooper Foundation for the endowment of a School of Medical Research.”

Hooper, Mrs. Mary E., an Alaskan Indian basket, for the Museum of Anthropology, in memory of her daughter, Ethel A. Hooper.

Howard, Mrs. Emma Shafter, two oak-framed engravings, by Haig, of Chartres and Peterborough Cathedrals.

Imperial County, ten acres of land as an addition to the Imperial Valley Experiment Station, near Meloland.

Ten shares of stock in the Imperial Southside Water Company, appurtenant to the tract mentioned above.

Irving, S. C., \$25 for a special prize for the best cartoon drawn by a student of the University during the year 1912-13.

Jones, Mrs. Carrie M. On March 11, 1913, \$100,000 was received, by the bequest of Mrs. Jones, as endowment for the Carrie M. Jones Scholarship Fund. The will of Mrs. Jones, who was a resident of Los Angeles, contained the following provisions:

"I will, devise, and bequeath unto the Board of Regents of the University of California the sum of One hundred thousand dollars (\$100,000) to be known as the 'Carrie M. Jones Scholarship Fund,' and to be held by them in trust for the following purposes upon the following conditions, to-wit:

"In trust, to invest the same in safe interest-bearing securities, and to apply the interest or income received from said investment to the assistance, maintenance, and education of male students of said University of California subject to the rights of said Regents to make such regulations as to the beneficiaries of such fund as in their judgment seems reasonable, except that such regulations shall provide for the following conditions:

"First: That said beneficiary or beneficiaries shall be qualified, under the rules and regulations then in force, to admission to the said University.

"Second: That said beneficiary or beneficiaries shall be those who are unable without such financial assistance to continue or pursue their studies at said University.

"Third: That the income from said fund shall be applied preferably to students whose purpose and intention is to complete the full course and not to students who propose to enter for a short term."

On March 11, 1913, the Regents voted to receive the bequest and to administer it in accordance with the provisions of the will.

On April 8, 1913, the Regents adopted the following regulations as to the conditions of award for the Carrie M. Jones Scholarships for men:

"1. That applicants must be duly matriculated male students in regular undergraduate status in the colleges at Berkeley.

"2. That the amount of these scholarships in each case be \$200 per annum, to be paid in ten equal monthly payments in accordance with the plan of paying the State of California and Levi Strauss Scholarships.

"3. That applications for these scholarships must be filed with the Recorder of the Faculties not later than April 1st of each academic year.

“4. That recommendations for the awarding of these scholarships be placed in charge of the Committee on Undergraduate Scholarships.”

The Board voted to include in the Endowment Pool the \$100,000 received by the bequest of Mrs. Jones.

Knights of St. Patrick, \$100 for the purchase of Irish books for the University Library, this being their third annual contribution of like amount and for like purpose.

Martin, Walter S., \$20 in support of the palaeontological excavation at Rancho La Brea.

Matthew, Allan P., 19 volumes of records in the Minnesota Rate Cases for the library of the School of Jurisprudence.

M'Bride, Sir Richard, \$500 for books and equipment dealing with Pacific Coast History.

McEnerney, Regent Garrett W., \$100 in support of the palaeontological excavations at Rancho La Brea.

McNamara Mining Company: through its president the company gave to the University a mining model; the only condition attached is “that in case the McNamara Mining Company should in the future require it for litigation they could be certain to have the use of it while the litigation was pending.”

Medical School and Hospital. At the Commencement exercises, on May 14, 1913, President Wheeler announced gifts for a new Medical School and Hospital aggregating \$479,250, with prospect of an ultimate total of \$600,000. The President said:

“The Medical School is being established on a new basis, according to new light. An effort has been made among friends to raise funds for the building of hospitals. A teaching hospital is absolutely lacking. There are various forms of hospital. We propose that our medical school shall have a hospital which is outright a teaching hospital, not mixed with the service of other ideals. A number of gifts are promised, all dependent on the sum of \$600,000 being obtained. The amount will surely be raised. The gifts promised to date are as follows:

“The Crocker Family in memory of Mr. George Crocker: Mr. Harriet Alexander, \$50,000; William H. Crocker, \$50,000; Templeton Crocker, \$25,000; Mrs. Malcolm Whitman, \$25,000. John Keith, in memory of his wife, \$150,000; George Whittell, \$25,000; Gordon Blanding, \$25,000; Mrs. F. W. Sharon, \$25,000; Mrs. Elise A. Dreier, \$10,000; Mrs. James Moffitt, \$10,000; Selah Chamberlain, \$10,000; C. F. Kohl, \$10,000; W. B. Bourn, \$10,000; Mrs. Jeannette Jordan

\$5,000; James Irvine, \$5,000; James K. Moffitt, \$5,000; A Friend of the University, \$5,000; Herbert and Mortimer Fleischacker, \$5,000; John Martin, \$2,500; Jacob Stahl, \$2,500; Roos Brothers, \$2,500; Antoine Borel, \$2,500; Ghirardelli & Co., \$2,000; D. Ghirardelli, \$1,500; Edward Coleman, \$1,250; H. Meyerfeld, \$1,000; L. Bissinger, \$1,000; A. Mack, \$1,000; Wallace Alexander, \$1,000; A. Schilling, \$1,000; Mrs. Hattie Simon, \$1,000; Wm. Fries, \$500; N. Fontana, \$500; L. Schwabacher, \$500; Sanford Sachs, \$500; M. Strasberger, \$500; P. E. Bowles, \$5,000; Mrs. E. L. Dow, \$1,000."

etcaif, Dr. M. M., \$50 for books for the library of the Scripps Institution for Biological Research.

ills, Ogden, \$5,000, received in March, 1913, for the maintenance of the D. O. Mills Expedition from the Lick Observatory to the Southern Hemisphere.

offitt, Regent James K., \$100 in support of the palaeontological excavations at Rancho La Brea.

yers, Dr. William S., \$300 in completion of his total gift of \$600 promised, and paid as to one-half the previous year, for the maintenance of experiments on nitrogenous fertilizers by the Agricultural Department.

apa Seminary Club, \$100 as an addition to the Napa Seminary Club Loan Fund.

ative Sons of the Golden West, \$3,000 for the maintenance of fellowships in California History.

ewman Club, Alumni Council of, \$100 as the Newman Hall essay prize.

orthwestern Pacific Railway Company, an agricultural demonstration train, generously provided so that the agricultural teachings of the University might be widely disseminated throughout the state, and aid to the University in connection with its work of agricultural extension and University extension in general.

acific Coast Gas Association, \$2,700 per annum for five years for the maintenance of a course leading to a gas engineering degree in the University of California. For the first year the gift was used for the construction, in the Hearst Memorial Mining Building, of a complete crude-oil water-gas set and its accessories, and for obtaining laboratory supplies, apparatus, and books on gas manufacturing and distribution. The water-gas set is of the laboratory type and sufficient in size to make all experiments for the determination of thermal efficiency of oil and the efficiency of all refractory materials, such as fire-brick, entering into the construction of the generators. A number of the chief gas engineering experts of the Pacific Coast aided

personally in the undertaking by lecturing in gas engineering. Regent John A. Britton, Professor Cory, and Professor Sibley were the committee who outlined the plans for the undertaking.

Randall, H. I., \$20, as an addition to the class of '87 Library Endowment. Ross, Madam Ida Hancock, the privilege of collecting fossil remains from the extraordinarily rich deposits of the Rancho La Brea (in L. 12, tract 215), Los Angeles. It was the donor's direction that the materials obtained in this work should be given away or sold to other institutions or individuals, but exchanges for the advancement of science were authorized by the donor, to be made by the professor in charge.

Santa Fé Railway Company, an agricultural demonstration train generously provided so that the agricultural teachings of the University might be widely disseminated throughout the state, and aid to the University in connection with its work of agricultural extension and University extension in general.

School of Jurisprudence faculty members, including Professors Jones, McMurray, and Kidd, Instructor Lynch, and Lecturers Tasheir, Thelen, and Griffiths, the following pictures for Boalt Hall of Law: a photogravure of John Marshall; a photograph of an engraving of Lord Ellenborough; photographs of Justice and of Jurisprudence from the Vatican; engravings of Sir Matthew Hale, Sir Thomas More, Sir Francis Bacon, and Lord Talbot; and etchings of Joseph Story and Lemuel Shaw, by King.

Scripps Institution for Biological Research, The. On September 10, 1912, it was reported that the Marine Biological Association of San Diego had now turned over to the Regents of the University of California all its property, including a deed for 170 acres of land at La Jolla, the buildings thereon, the ship "Alexander Agassiz," the books and papers of the Association, and the amount of \$1,914.73, standing to the credit of the Association in the Bank of San Diego. It was reported at the same time that Miss Ellen E. Scripps had offered to provide for the construction of a pier approximately 1,500 feet in length, at an estimated cost of \$20,000 for the installation of a salt-water pumping plant to cost \$2,500 and for additions to the library at a cost of \$1,000. She made provision, also, of \$13,471 for current support and maintenance for 1912-13 for the institution, and for the erection of twelve cottages on the lands of the Scripps Institution for Biological Research at La Jolla at a total cost of over \$10,000.

Sharon, Frederick W., \$500 for work of the Academy of Pacific Coast History.

School of Jurisprudence Graduates of 1912, a photograph of Rufus Choate, for Boalt Hall of Law.

Saw, Mr. Justice, a complete set of the Supreme Court Records of California since 1906, for the library of the School of Jurisprudence.

Southern Pacific Company, an agricultural demonstration train, generously provided so that the agricultural teachings of the University might be widely disseminated throughout the state, and aid to the University in connection with its work of agricultural extension and University Extension in general.

Stebbins Scholarship, Horatio. Four thousand dollars was received from an anonymous donor as endowment for the Horatio Stebbins Scholarship Fund. The income is to be awarded to a woman student at the University of California. The scholarship represents the money which the donor received and used for her own education and which she now in this manner returns for the help of others. The Regents on April 8, 1913, voted to accept the endowment and to follow the wishes of the donor.

Strauss Co., Levi, maintenance for the Levi Strauss Scholarships, at the rate of \$3,500 per annum.

Taylor, Henry B., '87, \$20, as an addition to the Class of '87 Library Endowment.

Tetjen '08, Miss Anna Meta, \$125 in provision for an undergraduate scholarship. This is the equivalent of a scholarship which she herself received in 1907 after the San Francisco fire.

Thus, Harry L., seven volumes of Thompson on Corporations, for the library of the School of Jurisprudence.

Towne, Mrs. Emma G., five perfect specimens of the now nearly extinct California condor (*Gymnogyps californianus*), which were collected between 1880 and 1895 by the late husband of the donor, Edward B. Towne, and are valued at \$1,000.

Victoria, The State of, two scholarships in irrigation engineering.

Vilegas, Jorge Andres, two pieces of pottery, found in recent excavations of an old Indian cemetery in El Temple (Province of Santiago), and a book on the "Anthropology of Chile," by Dr. Carlos E. Porter.

Veill, Raphael, \$150 in provision for three lectures at the University by the French critic and essayist, M. Firmin Roz.

Wheeler, Regent Charles S., \$100 in support of the palaeontological excavations at Rancho La Brea.

Also, the original parchment order by Queen Elizabeth, dated December 4, 1594, to the Lord High Treasurer to provide funds for

outfitting the expedition to the West Indies, in August, 1595, under the command of Sir Francis Drake and Sir John Hawkyns; the autograph endorsement of the Lord High Treasurer, ordering payment of the first thousand pounds to "Sir Thomas Hawkyns and Sir Francis Drake," appears on the reverse of the document.

Whitney, Mrs. G., a photograph of Stephen J. Field, for Boalt Hall Law.

Women's Christian Temperance Union, \$50 as a prize to the student of the University writing the best essay on the subject "The Relation of Individual Total Abstinence to the Prosperity of the Nation."

* See also the list of gifts in the statement of income for 1912-13.

DEPARTMENTAL LIST

GIFTS TO THE HERBARIUM, BOTANICAL MUSEUM, AND
BOTANICAL GARDEN

TO THE HERBARIUM

- Alexander, Miss Annie M., Oakland. (See under California Museum of Vertebrate Zoology.)
- Aker, Professor C. S., Agricultural College, University of the Philippines, Los Banos, P. I., 1 specimen Chinese edible algae.
- Colster, F. H., University of California, 4 sheets of Sierra Nevadan plants and 149 sheets of Philippine plants.
- Bradley, Professor C. B., University of California, 1 sheet of *Rosa rubiginosa*.
- Brandege, Mr. and Mrs. T. S., University of California, 1,750 sheets of phaenogams; 3 specimens cryptogams; also a series of photographs of types taken by Miss Alice Eastwood. (See also under Dr. C. A. Purpus.)
- Brandt, R. P., Gualala, 5 specimens marine algae.
- Burritt, Miss Elizabeth S., Pacific Grove, 1 specimen marine algae.
- California Museum of Vertebrate Zoology, Berkeley, through the kindness of Miss Annie M. Alexander, 16 sheets of phaenogams from Inyo County, collected by Mr. H. S. Swarth.
- Chandler, H. P., St. Louis, and Babcock, Professor E. B., University of California, 586 sheets of phaenogams from the Yosemite Park for herbarium use and for special distribution.
- Clemens, Mrs. J., Manila, 24 sheets of plants from Texas and Pacific Grove.
- Collier, Miss A. Blanche, '15, Berkeley, 1 sheet of *Ixia patens*.
- Collins, Frank S., Malden, Mass., 15 specimens algae.
- Condit, I. J., University of California, 36 sheets of phaenogams, mostly from the eastern United States.
- Davidson, F. P., Berkeley, 320 sheets of plants collected in central Ohio.
- Dickson, Howard K., '13, Watsonville, 1 sheet of *Sanguisorba minor*.
- Dudley Herbarium, Stanford University, through the kindness of Professor LeRoy Abrams, 2 specimens of *Trifolium*.

- Farlow, Professor W. G., Cambridge, Mass., 1 specimen marine algae.
- Gardner, Professor N. L., University of California, 105 sheets of marine algae; 20 specimens of fungi; also 32 specimens of marine algae.
- Geis, Miss Helen D., Los Angeles, 272 sheets of phaenogams from the Lake Tahoe district.
- Gilkey, H. E., '15, Santa Rosa, 1 sheet *Hippeastrum vittatum hybridum* and three sheets of a Japanese Iris.
- Goldsmith, B. C., '05, Forest Service, Alturas, five sheets of Modoc plants.
- Goodspeed, Dr. T. H., University of California, one sheet of *Solanum umbelliferum* from Moraga Valley.
- Gray, R. S., Oakland, 53 cryptogams, being mosses distributed by John M. Holzinger.
- Guam Agricultural Experiment Station, through the kindness of Mr. J. P. Thompson, five specimens of marine plants and 20 sheets of algae.
- Hall, Professor and Mrs. H. M., University of California, 505 sheets of phaenogams from Plumas County.
- Harrison, Miss Catherine, Wellsboro, Pa., one sheet of *Habenaria elegans* from the Yosemite.
- Haynes, Miss Caroline, Coventry, New York, 20 sheets American Hepaticae, Nos. 101-120.
- Hearst, Regent Phoebe A., Pleasanton, the herbarium of the late Dr. C. L. Anderson, of Santa Cruz, consisting of 2,184 sheets of plants, a number of which are duplicate types of new species.
- Henderson, Mrs. H. H., Berkeley, 15 sheets of phaenogams from Mono Lake.
- Hoak, Miss Charlotte M., '00, Pasadena, 48 sheets of phaenogams from Monte Rio.
- Horst Hop Co., Herman E., Perkins, three sheets of *Humulus lupulus*.
- Hus, Professor H. T. A., University of Michigan, Ann Arbor, one specimen of fresh-water algae.
- Jepson, Professor W. L., University of California, 379 sheets as follows: 359 sheets of foreign phaenogams; one sheet of *Lysichiton* collected by Miss M. L. Hutchinson; one sheet of *Datura* collected by Mr. S. H. Fauntelroy; 18 sheets of cultivated plants; also one specimen fresh-water algae.
- Jones, Wyatt W., Berkeley, ten sheets of plants from Redding.
- Jonsson, Dr. Helgi, Reykavik, Iceland, eight specimens of algae from Iceland.

- Klauber, Melville, San Diego, three specimens from Southern California.
- Kuckuck, Dr. Paul, Biologische Anstalt zu Helgoland, Germany, one specimen on stone of algae from Morocco.
- MacIlwaine, Miss Helen M., Carrville, Trinity County, two sheets of liliaceous plants
- Millmore, W., Taylor P. O., Alaska, 24 sheets of phaenogams.
- Mills, Knower, Forest Service, Sierraville, two Sierran plants.
- Monks, Miss Sarah P., San Pedro, 100 specimens of marine algae.
- Morrison, B. Y., '13, Washington, D. C., nine sheets of *Eucalyptus* and *Ulmus*.
- Morse, W. H., Santa Barbara, one sheet of *Agathis robusta* and one sheet of *Rondeletia cordata*.
- Oakland Public Museum, a collection of Alaskan plants consisting of 151 sheets collected by the late Walter E. Bryant.
- Parish, S. B., San Bernardino, 47 sheets of phaenogams; 16 specimens of fresh-water algae; also one sheet of fungus.
- Pendleton, Robert L., '14, Saratoga, 65 sheets of phaenogams from the Santa Cruz Mts.
- Purpus, Dr. C. A., University of California, 500 sheets of Mexican plants, determined by Mr. T. S. Brandegee.
- Rattan, Professor Volney, Berkeley, 685 sheets as follows: 63 specimens of lichens; 274 specimens of mosses; 73 sheets of *Carices*; 169 sheets of *Junci*; ten sheets of miscellaneous plants; and 96 sheets from the Grand Cañon of the Colorado.
- Rosendahl, Professor C. O., University of Minnesota, 44 stereoscopic photographs of species of *Mitella*.
- Schneider, Professor A., University of California, two phaenogams and two lichens.
- Setchell, Professor W. A., University of California, 23 sheets of leaf fungi from Bohemian Grove; 100 specimens of marine algae.
- Shinn, Charles H., Northfork, one sheet of *Eucalyptus*.
- Smith, Miss E. H., University of California, two sheets of *Grindelia robusta* from Inverness.
- Smith, Mrs. Inez Ray, Hillsborough, five sheets of *Aquilegia tracyi*.
- Snyder, Mrs. Mary S., La Jolla, two specimens of algae.
- Tate, C. M., Berkeley, one sheet of *Helichrysum bracteatum* var. *album*.
- Tracy, Miss Ethel, '03, Eureka, one sheet of *Polemonium carneum* and one sheet of *Arenaria douglasii*.

Tracy, J. P., '03, Eureka, 387 sheets to be mounted and 484 sheets for duplicates.

Valentien, A. R., San Diego, one sheet *Lewisia howellii* and one sheet of *Cypripedium fasciculatum*.

Walker, Miss Harriet A., University of California, 110 sheets of horticultural plants.

Westfall, Miss Mary J., Santa Cruz, two specimens of marine algae.

Wilder, Mrs. C. M., Carlotta, 13 sheets of phaenogams from northern California; 15 sheets mostly from Deer Creek, Tehama County.

Wilder, Gerrit P., Honolulu, Hawaii, 13 sheets of Hawaiian plants.

(Total number of specimens received by gift from July 1, 1912, to June 30, 1913, for the herbarium, 9,426.)

TO THE BOTANICAL MUSEUM

Alexander, Miss Annie M., Oakland. (See under California Museum of Vertebrate Zoology.)

Babcock, Professor E. B., University of California, seed capsules of *Sarcodes sanguinea*.

Bickford, E. L., Napa, one specimen of *Lycoperdon*.

Blood, R. H., U. S. Forest Service, giant puff-ball from Northfork, Madera County.

Botanischer Garten und Institut, Berne, Switzerland, kindness of Professor Dr. Ed. Fischer, 27 species of truffles (fungi) in alcohol in bottles.

Bradley, Professor C. B., University of California, two pods from Siam.

Brandeggee, Mr. and Mrs. T. S., University of California, seven specimens.

Bridwell, J. C., University of California, 12 specimens of fungi from Imperial Valley.

Bullard, Charles, Somerville, Mass., one microscopic slide of algae and one vial of algae.

California Museum of Vertebrate Zoology, Berkeley, through the kindness of Miss Annie M. Alexander, seven pine cones, branches of Ephedra, Cypress, etc., collected in Inyo County by Mr. H. S. Swarth.

Collins, Frank S., Malden, Mass., two vials of algae from Bermuda.

Condit, I. J., University of California, fruit of *Banksia integrifolia*.

Farlow, Professor W. G., Cambridge, Mass., one vial of algae from Florida.

Gardner, Professor N. L., University of California, one puff-ball from Dillon's Beach, nine specimens of hypogaeous fungi and 29 bottles of algae in formalin.

- Hall, Professor H. M., University of California, *Cicuta* roots from Quincy, Plumas County, and three wood specimens from *Pinus lambertiana*.
- Hofen, W. C., Oakland, one Sierran puff-ball.
- Jepson, Professor W. L., University of California, four specimens collected by Mr. H. H. Green in the Santa Lucia Mountains, being acorns of *Quercus morehus*, *Quercus agrifolia*, *Pinus tuberculata*, and *Abies venusta*; one specimen of *Boschniakia strobilacea*; two cones of *Pinus jeffreyi* collected by L. S. Smith on Mount Hough, Plumas County; also 20 cones collected in Oregon by Miss Kenworthy.
- Johnson, A. N., Spokane, Wash., one specimen of fresh-water algae.
- Jones, Miss K. D., University of California, three specimens of fasciated plants from the campus.
- Kuckuck, Dr. Paul, Biologische Anstalt zu Helgoland, Germany, two vials of *Nemoderma tingitana*.
- Kuhn, Miss R., El Cerrito Ranch, Sonoma, fruits of *Hedera helix*.
- McBeth, Mrs. H. P., Quincy, one specimen of *Lycoperdon sculptum*.
- Morse, W. H., Santa Barbara, one cone each of *Cycad* and *Dioon*.
- Noddin, Ralph E., '12, Northfork, 20 specimens of tree fungi.
- Smith, C. Stowell, Asst. District Forester, San Francisco, Big-tree trunk from Nelder Grove, near Sugar Pine, Madera County (Sierra National Forest).
- Twiss, W. C., University of Utah, Salt Lake City, ten specimens of fresh-water algae.
- University Farm, Davis, kindness of Mr. C. J. Wight, 257 sheets of hemp, flax, and grasses for class use.
- Wilder, Mrs. C. M., Carlotta, one specimen *Lycoperdon sculptum* from Long Lake, Plumas County.
- (Total number of specimens received by gift from July 1, 1912, to June 30, 1913, for the Botanical Museum, 435).

TO THE BOTANICAL GARDEN

- Chandler, H. P., '02, St. Louis, Mo., packet of seed of *Clarkia elegans* from El Portal.
- Dickson, Howard K., '13, Watsonville, one packet of seed of Burnet (*Sanguisorba minor*).
- Hall, Professor H. M., University of California, one packet seed of *Madia dissitiflora* and one packet seed of *Madia glomerata*; one packet seed of *Ceanothus cuneatus* from Marston, Plumas County.

- Jepson, Professor W. L., University of California, 12 packets of New Zealand seeds from J. W. Adams; bulbs of *Allium serratum*, presented by Miss R. Kuhn, Sonoma. (See also under Mr. Carl Purdy.)
- Maiden, Dr. J. H., Sydney, N. S. Wales, seed of *Nicotiana suaveolens*.
- Okabe, Mme. Asa, Berkeley, packet seed of *Camellia thea* and packet seed of *Hibiscus*, both from Japan.
- Parish, S. B., San Bernardino, nine packets of seed of Colorado Desert plants.
- Purdy, Carl, Ukiah, ten living plants, through Professor W. L. Jepson.
- Purpus, Dr. C. A., University of California, two cuttings of *Euphorbia purpusii* from Mexico; one packet seed of *Nicotiana plumbaginifolia*; one packet seed of *Scutellaria splendens* from Vera Cruz, Mexico.
- Reed, Miss Rhoda R., '13, San Luis Obispo, packet seeds of *Hosackia americana* from Yosemite Valley.
- Rowe, E. D., Santa Barbara, a collection of *Cistus*, representing seven species.
- Royal Botanic Garden, Calcutta, kindness of Capt. A. T. Gage, seeds of five species of *Quercus* and also of *Bucklandia* and *Alnus*.
- Royal Botanic Gardens, Kew, kindness of Director, packet seed of wild cabbage of Dover Cliffs.
- Saunders, '12, Ukiah, three living plants of *Gaultheria shallon* and six living plants of *Vancouveria parviflora*; all from Marin County.
- Schultz, Mrs., Redding, stems and roots of leguminous plant.
- Tracy, J. P., '04, Eureka, packet seed of *Lupinus nanus*, form.
- Walter, Frank, San Diego, Eucalyptus seeds representing 11 species.
(Total number of specimens received by gift from July 1, 1912, to June 30, 1913, for the Botanical Garden, 82. Grand total of donations to the department between these dates, 9,943.)

GIFTS TO THE COLLEGE OF MINING AND METALLURGY

FOR THE YEAR ENDING JUNE 30, 1913

- During this year the \$25,000 donated by Mrs. Hearst towards the equipment of the Hearst Memorial Mining Building has been finally expended in toto. Mrs. Hearst has authorized a further expenditure of \$5,000 during the coming year.
- In addition she has donated six large blocks of ore taken from the Homestake Mine, which were sent already cut, polished, and engraved, showing the depths from which they were taken. The six added to the twelve already donated make a total of eighteen, as follows:

Open cut—100, 200, 300, 400, 500, 600, 700, 800, 900, 1,000, 1,100, 1,250, 1,400, 1,550, 1,700, 1,850 and 2,000. They are mounted and set up in the museum of the Mining Building. This ore is of peculiar interest, for it is of such low grade that in most places it would be considered unworkable, but the mine has been so skillfully managed that it is now one of the most profitable in the world, a fraction of this output having provided for the entire cost of the Mining Building, which has been over \$700,000. This exhibit is therefore a peculiarly appropriate gift to the museum.

Mrs. Hearst has given eleven enlarged mounted photographs, approximately 68 by 48 inches in size, which have been placed in the lower gallery of the Mining Laboratory. They represent early views taken in California, some of them dating back to the beginning of American occupancy. They are all of great value to those interested in early California History. She has also donated six transparencies, taken in the Yosemite Valley. The photographs and transparencies are in details as follows:

Photographs

Celebration of Admission Day—Oct. 29, 1850 (Corner of Montgomery and California streets, San Francisco, Looking North) Enlarged from crayon sketch.

Lone Mountain, from Jones and California streets, San Francisco, 1856.

The Mission, from California street and Jones street, San Francisco, 1856.

Mission School House, San José Mission, 1854.

The Colfax Party, Yosemite Valley, 1861.

Whitney Glacier, Mount Shasta, 1868.

Sutter's Mill and Marshall, Discoverer of Gold in California, January 19, 1848.

The Mother Lode, Mariposa County, California, 1859.

Placer Mining, Tuolumne River, California.

New Idria Quicksilver Mine, Inyo County, California, 1857.

California Pioneers of 1849 (564 names and photographs.)

Transparencies

Yosemite Valley from Trail Near Sentinel Dome.

Merced River and The Three Brothers, Yosemite Valley.

Yosemite Falls, Yosemite Valley.

El Capitan, Yosemite Valley.

Panorama of Yosemite Valley, General View Looking East.

In addition, Mrs. Hearst has given a mounted and illustrated manuscript, which appears to have been issued by Louis Philippe, King of France. It bears the following inscription:

“Honneur aux Illustres Defenseurs de nous du 27, 28, et 29 Juillez, 1830.”

It gives in some detail an account of the revolution which occurred in Paris on these dates, and is illustrated with thirteen portraits, including those of Louis Philippe, Marie Amélie, “Reine des Français,” and among other notables, the pictures of Marechal Soult and “Le Général Lafayette, Député.” It is illustrated with seven miniature water colors depicting scenes of the revolution. It bears the signatures of some twenty or thirty individuals, and among them is that of Lafayette.

GIFTS TO THE COLLEGE OF CIVIL ENGINEERING

JULY 1, 1912, TO JUNE 30, 1913

H. M. Goodman, two framed pictures of Pearl Harbor Drydock.

Waddell and Harrington, specifications and plans for ten bridges, C. N. P. Railway.

N. Clark and Sons, samples of clay pipe and raw clay.

Gladding, McBean and Co., samples of clay pipe, raw clay, brick and roofing tile.

Barber Asphalt Co., six sawed blocks of typical asphalt pavements, and two glass graduates showing constituents of asphalt wearing surfaces for traffic.

Professor F. Soulé, Index to Vols. 1-74, *Transactions American Society of Civil Engineers*, 1867-1911.

Diamond Match Co., 7,000 feet B.M. red and white fir and yellow pine for thesis tests.

Haviland and Tibbetts, Report on Richmond Harbor Project.

Santa Cruz Portland Cement Co., 25 sacks of cement.

Henry Cowell Cement Co., 40 sacks Mount Diablo cement.

Santa Cruz Portland Cement Co., 26 sacks of cement.

Mrs. F. Soulé, ten volumes for the Civil Engineering Library.

E. E. Adams, three large pictures of the Willamette River Bridge and two of the Sacramento Bridge.

S. Bolton, pictures of Minots Ledge Lighthouse.

Santa Cruz Portland Cement Co., 20 sacks Davenport cement.

R. G. Thompson, Pennsylvania R. R. lines, two large pictures.

Warren Co., museum specimens of their warrenite pavement.

GIFTS TO THE CALIFORNIA MUSEUM OF VERTEBRATE ZOOLOGY

JULY 1, 1912, TO JUNE 30, 1913

NOTE.—This list does not include specimens secured by collectors regularly employed from the fund provided by Miss Alexander for maintenance of the Museum; nor does it include a number of accessions received by purchase out of the same fund.

The term "mammal" as here used ordinarily means a dry study-skin plus the cleaned skull belonging to the same individual, not infrequently a complete skeleton, and sometimes the entire animal preserved in alcohol. A "bird" is usually a dry study-skin, sometimes a partial or complete skeleton. A "set of eggs" is the total number of eggs found in a single bird's-nest, often accompanied by the nest itself. A "reptile" is the entire animal preserved in alcohol.

Alexander, Miss Annie M., 67 skulls of California mammals, prepared by Dr. Hornung; one skull of foreign mammal (*Procavia*); one coyote (*Canis ochropus*, near topotype), from Stanislaus County; one fisher and one flying squirrel, from Siskiyou County.

Alexander, Miss Annie M., and Kellogg, Miss Louise, 22 mammals (*Sorex*, *Reithrodontomys*, and *Microtus*), and 14 birds, from Grizzly Island, Solano County.

Ames, J. B., one bird (*Falco*), and one antelope horn, from Stanislaus County.

Baldwin, George H., one bird (*Aimophila ruficeps*), from Kern County.

Billings, Dr. W. M., three foreign finches.

Bridwell, Professor J. C., nine amphibians and reptiles, from Imperial County; 27 amphibians and reptiles, from San Jacinto Mountains; 19 amphibians and reptiles, from the San Francisco Bay region; seven amphibians and reptiles, from Sonoma County; nine amphibians, one hawk, and one mole, from Mendocino County; one set of eggs (road-runner) from Imperial County; two mammals and ten amphibians from Marin County.

Brooks, Allan, one white-tailed ptarmigan, from Selkirk Mountains, British Columbia; one bird (*Sayornis phoebe*) from Monterey.

Bryant, Dr. Harold C., 30 reptiles, from San Diego and Sonoma counties; 75 photographic negatives of various zoological subjects; one section of tree trunk showing work of the California woodpecker; one bird (*Mergus americanus*), from Merced County; one cleaned skeleton of a lizard (*Sceloporus*); one snake (*Diadophis*), from Berkeley.

- Bullard, F. A., two specimens of deer (*Odocoileus hemionus*), from Fresno County.
- Camp, Charles L., one skull of a gray fox, from the San Gabriel Mountains, Los Angeles County; one specimen of mole, from Napa County; one shrew (*Sorex montereyensis*) from Berkeley; 592 reptiles and amphibians from southern and central California; one snake (*Bascanion*) and one mole, from Napa County; eight bats (*Eumops* and *Antrozous*), from Los Angeles County; six mammals (*Dipodomys*) from Colorado Desert; one skull of a coyote from near Berkeley.
- Carriger, Henry W., two birds (junco and yellowthroat), from the San Francisco peninsula.
- Chandler, Asa C., two mammals (*Sorex* and *Microtus*), from Yosemite Valley.
- Chi Phi Fraternity, one red-tailed hawk, from the hills near Berkeley.
- Clarke, Frank C., six mule deer (*Odocoileus hemionus*), from Fresno County; three mule deer, from Butte County; one mule deer, from Tulare County; one black-tailed deer (*Odocoileus columbianus*), from Monterey County; one California mule deer (*O. h. californicus*), from San Diego County; two skeletons of domestic sheep; one skeleton of domestic goat; three skins and complete skeletons of black-tailed deer (*O. columbianus*), from Siskiyou County.
- Clyde, Norman, one skunk (*Mephitis occidentalis*), from Berkeley.
- Dirks, William N., one bird (hybrid between pheasant and common fowl); from State Game Farm.
- Dixon, Joseph, one bat (*Lasiurus*), from San Diego County; two birds (*Circus* and *Passerella*), from San Diego County.
- Ferguson, Andrew D., one mule deer (*Odocoileus hemionus*), from the Sierras of Fresno County.
- Fry, J. A. B., one mammal (*Putorius*), from Berkeley.
- Goodspeed, Dr. T. H., one hawk (*Buteo*), from near Berkeley.
- Green, C. deBlois, two skulls of land otter, from Queen Charlotte Islands, British Columbia.
- Grinnell, Mrs. Hilda Wood, 24 bats (*Nyctinomus*), from Contra Costa County.
- Hall, Charles L., 31 birds and 2 mammals, from Sacramento and Eldorado counties.
- Hasselborg, Allen E., three skulls of marten, from Admiralty Island, Alaska.
- Hawver, Dr. J. C., one amphibian, from Placer County; one amphibian, from Marin County; one bat (*Nyctinomus*), from Placer County.

- Eger, G. H., two Australian finches.
- Eger, R. H., 11 Asiatic birds.
- Henderson, J. S., one skull of black bear, from Butte County.
- Hermes, Professor W. B., one hawk (*Buteo*), from hills near Berkeley.
- Holden, F. Harvey, eight skeletons of jack-rabbits and one of ground squirrel, from San Joaquin County.
- Holliger, C. D., five gophers (*Thomomys*), from Berkeley; three reptiles, from Berkeley.
- Horne, Professor W. T., one wood-rat (*Neotoma*), from near Berkeley.
- Howell, Alfred Brazier, seven birds new to the museum, from Central America; four birds (*Aphelocoma insularis*), from Santa Cruz Island.
- Ingersoll, Albert M., five sets of birds' eggs new to the museum, from the Sierra Nevada Mountains and San Diego.
- Kellogg, Miss Louise (with Miss Alexander), 22 mammals and 14 birds, from Grizzly Island, Solano County.
- Kent, William, one rattlesnake, from the hills near Berkeley.
- Koppel, I. L., two fawns (*Odocoileus c. scaphiotus*), from Santa Clara County.
- Kriss, Mrs. S., one parrot (*Brotagerys*), from South America.
- Law, J. Eugene, one mammal (*Sciurus apache*), from Arizona.
- Littlejohn, Chase, four mammals (*Sylvilagus auduboni*), from San Mateo County.
- Mailliard, Joseph, one antler of elk (*Cervus roosevelti*), from Marin County.
- Maurer, Mrs. Oscar, one nest of water ouzel, from Lake Tahoe.
- McIlhenny, Edward A., one skin and skull of Louisiana black bear (*Ursus luteolus*).
- McNear, George P., Section of tree trunk showing abnormal trait of California woodpecker, in storing pebbles instead of acorns.
- Miller, Dr. Loye Holmes, Bendire thrasher (*Toxostoma bendirei*), from near Los Angeles; grosbeak (*Zamelodia*), from Riverside.
- Noble, W. H., three birds (*Bombycilla*), from Sacramento County.
- Parker, Edwin S., 36 birds, from Plumas County, several of particular value; two birds, from Berkeley.
- Rasmussen, James A., two skins of deer (*Odocoileus h. californicus*), from Ventura County.
- Ray, Milton S., one owl (*Cryptoglaux*), from Eldorado County.
- Robison, A. C., two foreign finches.

- Ryerson, K. A., one bird (*Pisobia*), from San Mateo County.
- Schussler, George W., one bird (*Penthestes*), from San Francisco.
- Shelton, Alfred C., one yellow rail (*Coturnicops*), from Petaluma; one ferruginous rough-legged hawk, from Sonoma County; nine birds (jays and hawks), from Sonoma County; nine birds (*Cyanocitta*), from Sonoma County; two birds (*Accipiter* and *Sphyrapicus*), from Sonoma County.
- Stephens, Frank, seven bats (*Macrotus*), and one snake (*Chionactis*), from eastern San Diego County.
- Stock, Chester, one skin and skeleton of mole (*Scapanus*), from San Francisco.
- Stone, George E., one skin and skeleton of coyote, from Berkeley hills; one melanistic gopher (*Thomomys*).
- Storer, Tracy I., two moles (*Scapanus latimanus*), from San Leandro; one snake (*Bascanion*), from San Leandro; two reptiles, from Sonoma County.
- Stover, A. J., one bat (*Myotis californicus*), from Oregon.
- Swarth, Harry S., one skull of mammal (*Lepus alleni*).
- Taylor, Walter P., one mammal (*Thomomys*), from near Berkeley; one reptile (*Gerrhonotus*), from near Berkeley.
- Tevis, Lansing K., one bird (*Odontophorus*), from Canal Zone, Central America.
- Towne, Mrs. Emma G., five perfect specimens of California condor (*Gymnogyps*), from southern California; two partial skeletons of condor.
- Tyler, John G., one mole (*Scapanus*), from Fresno County; three birds from Mexico.
- VanRossem, Adriaan, one bird (kingfisher), from Central America.
- Vennink, H. L., one skull of California condor (*Gymnogyps*).
- Wallace, G. B., one mole (*Scapanus*), from Nevada County.
- Wear, Miss Winnifred N., two bats (*Nyctinomus*), from Fresno.
- Wells, C. E., one weasel (*Putorius*), from Tulare County.
- Wells, Gurni, four birds (*Certhia* and *Aimophila*), from Sonoma County.
- Wilder, Harry E., 12 mammals (including the rare *Phenacomys*), from Humboldt County.
- Willett, George, one partial skin of white-cheeked goose, from Sitka, Alaska; seven reptiles, from Laysan Island, H. T.; three birds (petrels) from Laysan Island, H. T.
- Wilson, Lee, two moles (*Scapanus truei*), from Moacoe County.
- Wyman, L. E., six mammals, from Nampa, Idaho.

GIFTS TO THE DEPARTMENT OF ZOOLOGY

- Brownsill, Mrs. D. S., one cassowary skin, from Dutch New Guinea.
- Bryant, H. C., '10, two mice.
- Christiansen, Miss E., '14, one *Taenia saginata*.
- Christiansen, Dr. H. B., one human embryo.
- Gobar, F. H., '13, collection of reptiles (four) from Mohave Desert; one gopher from Berkeley.
- Hall, H. V. M., collection of named Pycnogonida (12 vials), including types and co-types of new species, from Pacific Coast.
- Hearst, Mrs. Phoebe Apperson, collection of dried hydroids and bryozoa from the Pacific Coast, collected by C. L. Anderson.
- Kofoed, Professor C. A., three collections of plankton from lakes in the High Sierra; 11 specimens of golden trout (*Salmo aquabonita* and *S. roosevelti*) from Mount Whitney region; two specimens of Kern River trout; collection of parasites of fresh-water fishes (145 specimens) from Havana, Illinois; collection of amphibians (60 specimens) from Inverness.
- Metcalf, Professor M. M., collection of amphibians (65 specimens), Bay Region.
- Logan, H., one *Gerrhonotus* from Berkeley.
- Moody, Dr. Agnes C., microscopical preparations; collection (47 specimens) infusorial earths; collection Anurida; one nautilus shell, three *Halotis* shells, one ostrich egg.
- Sawyer, Dr. W. A., one *Macacus*.
- Spring Valley Water Co., by G. A. Elliott, superintendent, 124 jars of fresh-water plankton from Lake San Andreas and Upper and Lower Crystal Springs lakes.
- Stone, G. E., '14, *Pituophis catenifer*, collection of amphibians (40 specimens.)
- Wells, C. E., '11, collection (six vials) of parasites of mammals, from Visalia.

LECTURES AND ADDRESSES*

SUMMER SESSION, 1912

- Dr. T. C. McCleave, President of the California Association of Medical Milk Commissions: Public health lecture on "Milk in Relation to Public Health," June 25.
- Professor Joseph Jastrow, of the University of Wisconsin: Public lecture on "Character and Temperament," June 26.
- Dr. Creighton Wellman, Prof. of Tropical Medicine, Hygiene, and Preventive Medicine, Tulane University, New Orleans: Public health lecture on "The Spread of Disease by Insects," June 27.
- President William Trufant Foster, of Reed College: Public lecture on "The Professional Spirit," June 28.
- Hector Alliot, Sc.D., Officer of the French Academy, Curator of the Southwest Museum in Los Angeles: Illustrated lecture, under the auspices of the San Francisco Society of the Archaeological Institute of America, on "Prehistoric Life on Santa Catalina Island," July 1.
- William B. Herms, Asst. Prof. of Entomology: Public lecture on "Rural Hygiene," July 1.
- Prof. Joseph Jastrow, of the University of Wisconsin: Public lecture on, "The Emotions and Conduct," July 1.
- Dr. H. B. Graham, Asst. Prof. of Surgery in Stanford University: Illustrated lecture on "The Effects of Neglect on the Ears, Nose, and Throat in School Children," July 2.
- Baroness Bertha von Suttner: Public lecture on "The Universal Peace Movement," July 3.
- Prof. Joseph Jastrow, of the University of Wisconsin: Public lecture on "The Appraisal of Human Qualities," July 5.
- Prof. Maria Sanford, of the University of Minnesota: Illustrated lecture on "Greek Art," July 8.

* This list includes lectures delivered under the auspices of the University or connected organizations by visiting educators, public men, etc., and by members of the faculty outside of their regular courses.

- Dr. R. T. Crawford, Assoc. Prof. of Practical Astronomy: Illustrated lecture on "European Observatories," July 8.
- Dr. W. A. Sawyer, Director of the Hygienic Laboratory of the California State Board of Health: Illustrated public lecture on "Rabies and its Control," July 9.
- Harley P. Chandler, Instr. in Botany, Principia School, St. Louis, Mo.: Illustrated lecture on "Falls and Flowers of the Yosemite," July 10.
- Prof. Maria Sanford, of the University of Minnesota: Illustrated lecture on "Florence and Florentine Artists," July 10.
- Prof. Maria Sanford, of the University of Minnesota: Illustrated lecture on "Venice and Venetian Artists," July 12.
- Dr. Oliver M. Washburn, Asst. Prof. of Archaeology: Illustrated lecture on "The Historical Development of the Greek Temple," July 15.
- Dr. R. G. Brodriek, Health Officer of San Francisco: Illustrated lecture on "Tuberculosis," July 16.
- Dr. J. N. Force, Asst. Prof. of Epidemiology: Illustrated lecture on "The Great Epidemic Diseases, their History and Control," July 16.
- Richard Burton, Prof. of English Literature in the University of Minnesota: Public lecture on "Robert Louis Stevenson," July 19.
- Captain John R. Barber, Medical Corps, U. S. A.: Public health lecture on "Sanitary Experiences at a Prison Stockade in the Tropics," July 23.
- Col. Harris Weinstock, of San Francisco: Public lecture on "The Panama Canal, its Influence on the Industrial and Commercial Conditions of the Pacific Coast," July 24.
- Prof. Reinhard Thom, Ph.D., Prussian Exchange Lecturer at Columbia University: Public lecture on "Bismarck," July 24.
- Dr. G. F. Reinhardt, Prof. of Hygiene and University Physician: Public health lecture on "Student Health," July 25.
- O. A. Prager, Consulting Landscape Architect for the City of Oakland: Illustrated lecture on "Laying Out School Grounds," July 29.
- Dr. F. P. Gay, Prof. of Pathology: Illustrated lecture on "Principles of Immunity that have been Successfully Applied in Preventing and Curing Disease," July 29.
- Dr. Alva Walker Stamper, Prof. of Mathematics, State Normal School, Chico: Illustrated lecture on "Hindu-Arabic Numerals," July 31.
- Dr. M. E. Jaffa, Prof. of Nutrition; in charge of the Poultry Station: Public health lecture on "The Consumer and the Pure Food and Drug Law," August 1.

FIRST HALF-YEAR 1912-13

- Christopher G. Ruess, Chief Probation Officer, Oakland: League of the Republic lecture on "Adult Probation," Aug. 27.
- Dr. E. Percival Lewis, Prof. of Physics: Kosmos Club lecture on "University Organization: The President and the Faculty," Sept. 2.
- Col. Harris Weinstock, of San Francisco, the Governor's Commissioner to San Diego: League of the Republic lecture on "Free Speech and the I. W. W.," Sept. 5.
- Rev. Albert W. Palmer, Pastor of Plymouth Congregational Church, Oakland: Playgrounds lecture on "Play and the Higher Life," Sept. 5.
- Dr. Charles Mills Gayley, Prof. of the English Language and Literature: Great books lecture on "Sophocles' Oedipus Rex," Sept. 6.
- Dr. Richard C. Cabot, of the Harvard Medical School: League of the Republic lecture on "Socialism and Medicine," Sept. 10.
- Prof. Clark W. Hetherington, of the Joseph Fels Endowment in Play and Educational Athletics: Playground and Recreation lecture on "The Training of Playground and Recreation Workers," Sept. 12.
- Dr. W. A. Sawyer, Director of the State Hygienic Laboratory: Preventive Medicine lecture on "State Mechanism for the Control of Disease," Sept. 13.
- Arthur Cushman McGiffert, Ph.D., D.D., of Union Theological Seminary: E. T. Earl lectures, under the auspices of the Pacific Theological Seminary: "Nature and the Supernatural," Sept. 10.
"Modern Ethical Theism," Sept. 13.
"Salvation and the Christian Life," Sept. 17.
"The Person and Work of Christ," Sept. 19.
"Religious Authority," Sept. 20.
- James E. Rogers, Asst. Secretary of the Playground and Recreation Ass'n: League of the Republic lecture on "The Need of Adequate Playgrounds," Sept. 17.
- Dr. Richard G. Boone, Lecturer in Education: Playground and Recreation lecture on "Play: a Fundamental Factor in Modern Education," Sept. 19.
- Dr. Charles Mills Gayley, Prof. of the English Language and Literature: Great books lecture on "Sophocles' Antigone," Sept. 20.
- Andrew Furuseth, President of the International Seamen's Union: League of the Republic lecture on "Present Status of Seamen and Legislation Sought by Them," Sept. 24.

- Robert Sibley, Prof. of Mechanical Engineering: Public lecture before the League of California Municipalities on "The West as World Beaters in Engineering," Sept. 25.
- Dr. Jessica B. Peixotto, Asst. Prof. of Social Economics: Playgrounds and Recreation lecture on "Economic and Social Conditions Underlying the Development of the Playground and Recreation Movement," Sept. 26.
- Dr. Myer E. Jaffa, Prof. of Nutrition; in charge of the Poultry Station: Public lecture before the League of California Municipalities on "The Consumer and the Pure Food Law," Sept. 26.
- Dr. George P. Adams, Asst. Prof. of Philosophy: Lecture before the Philosophical Union on "The Philosophy of Socialism," Sept. 27.
- A. W. Whitney, Assoc. Prof. of Insurance and Mathematics: Preventive Medicine lecture on "Vital Statistics: Life Insurance," Sept. 27.
- Dr. Charles Mills Gayley, Prof. of the English Language and Literature: Great books lecture on "The Transition from Sophocles to Euripides," Sept. 27.
- Percy V. Long, City Attorney, San Francisco: League of the Republic lecture on "The Housing Problem," Oct. 1.
- Eustace M. Peixotto: Playgrounds and Recreation lecture on "The Wider Use of School Plant for Social, Recreative and Civil Purposes," Oct. 3.
- Dr. Myer E. Jaffa, Prof. of Nutrition; in charge of the Poultry Station: Preventive Medicine lecture on "Pure Food," Oct. 4.
- Dr. Warner Brown, Instr. in Psychology: Kosmos Club lecture on "Universities and the Carnegie Foundation," Oct. 7.
- Dr. Oliveira Lima, Brazilian Minister to Brussels: Public lecture on "The Independence of Latin America and its evolution in the Nineteenth Century," Oct. 7.
- Alison Ware, President of the State Normal School, Chico: Playgrounds and Recreation lecture on "Social and Recreational Activities of the Rural Schools," Oct. 10.
- Dr. Albert Schneider, Prof. of Pharmacognosy, Economic Pharmaceutical Botany, Histology, and Bacteriology in the Dept. of Pharmacy: Preventive Medicine lecture on "Quality and Purity of Drugs in their Bearing on the Practice of Medicine," Oct. 11.
- Dr. Charles Mills Gayley, Prof. of the English Language and Literature: Great books lecture on "The Antigone and the Remaining Plays of Sophocles," Oct. 11.

- Rabbi Martin A. Meyer, Temple Emanu-El, San Francisco; Lecturer in Semitic Literature and History: League of the Republic lecture on "The Social Evil in Our Cities," Oct. 15.
- H. J. Brunner, of San Francisco: Civil Engineering Ass'n lecture on "Concrete as a Fireproofing Material," Oct. 16.
- Joseph C. Astredo, Probation Officer, San Francisco: League of the Republic lecture on "The San Francisco Juvenile Court," Oct. 17.
- Rev. Herbert Jump, of Oakland: Playgrounds and Recreation lecture on "The Moving Picture Theatre," Oct. 17.
- Dr. T. C. McCleave, of Berkeley: Preventive Medicine lecture on "Milk Supply in Relation to Public Health," Oct. 18, Oct. 25.
- Dr. Charles Mills Gayley, Prof. of the English Language and Literature: Great books lecture on "Introduction to the Dramas of Euripides," Oct. 18.
- Dr. Chin-tao Chen, lately Minister of Finance to the Chinese Republic and now delegate of the Republic to the International Congress of Chambers of Commerce: Public lecture on "Are the Chinese Prepared for the Republican Form of Government?" Oct. 21.
- Dr. H. J. Webber, Prof. of Plant Breeding in Cornell University: Public lecture on "Variations and their Artificial Production," Oct. 21.
"The Use of Hybridization in Plant Breeding," Oct. 22.
"Types of Breeding: The Improvement of Citrus Fruits, Corn, Cotton, Timothy, etc.," Oct. 23.
- C. W. Blanpied, Immigration Secretary, San Francisco Y. M. C. A.: League of the Republic lecture on "The Humanitarian Engineer," Oct. 22.
- Dr. Herbert E. Bolton, Prof. of American History: An illustrated lecture on "Early Missions of California," Oct. 22.
- William Dallam Armes, Assoc. Prof. of American Literature: An illustrated lecture on "Backgrounds of English Literature, 1, The Anglo-Saxon Period," Oct. 24.
- Dr. E. Percival Lewis, Prof. of Physics: Physics department lecture, open to the public, on "Absorption, Fluorescence, and Resonance," Oct. 25.
- Dr. W. C. Bray, Asst. Prof. of Chemistry: Chemistry Colloquium, "The Work of Perrin on the Brownian Movement," Oct. 28.
- William A. Gates, Secretary of the State Board of Charities and Corrections: League of the Republic lecture on "Treatment of Delinquents in Institutions," Oct. 29.
- George Dickie, Supt. of Recreation Centers, Oakland: Playgrounds and Recreation lecture on "Organization and Management of the Playground and Recreation Ass'n of America," Oct. 31.

- William Dallam Armes, Assoc. Prof. of American Literature: Public lecture on "Chaucer's England," Oct. 31.
- Dr. Charles Mills Gayley, Prof. of the English Language and Literature: Great books lecture on "Euripides' Medea," Nov. 1.
- Dr. Elmer E. Hall, Assoc. Prof. of Physics: Public lecture on "Residual Aberrations in Lenses," Nov. 1.
- Prof. Ira Cross, Dept. of Economics, Stanford University: League of the Republic lecture on "Socialism; An Analysis," Nov. 5.
- Robert Newton Lynch, of the Cal. Development Board: Playground and Recreation lecture on "The Relation of Playgrounds and Recreation Facilities to the Immigrant," Nov. 7.
- Dr. E. P. Lewis, Prof. of Physics: Chemistry Colloquium, "The Nature of the Ions in Flames and Flame Gases," Nov. 11.
- William McDevitt, Socialist candidate for Mayor of San Francisco at the previous election: League of the Republic lecture on "Socialism: The Case For," Nov. 12.
- Dr. Frederick Haynes Newell, Director of the United States Reclamation Service: Dept. of Agriculture lecture on "The Work of the Reclamation Service," Nov. 12.
- Prof. Hans Zinsser, of Stanford University: Sigma Xi lecture on "Recent Studies on the Nature of Bacterial Poisons," Nov. 13.
- S. S. McClure, Editor of McClure's Magazine: League of the Republic lecture on "The Cure for Political Corruption in the United States," Nov. 14.
- Prof. Aaron Aaronsohn, Director of the Agr. Exp. Station at Haifa, Palestine: Dept. of Agriculture lecture on "Climatic and Agricultural Similarities between Palestine and California," Nov. 14.
- C. M. Kurtz, Engineer of the Southern Pacific: Illustrated lecture on "The Structural Features of the Dumbarton Cut-off," Nov. 15.
- E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Illustrated lecture before the Home Economic Club of the University of California on "The History of Dress," Nov. 15.
- Edward F. Adams, President of the Commonwealth Club of California: League of the Republic lecture on "Socialism: The Case Against," Nov. 19.
- Miss Ethel Moore, Member of the Board of Playground Directors, Oakland: Playground and Recreation lecture on "City Plans for Playgrounds and Public Recreation," Nov. 21.
- Dr. W. A. Sawyer, Director of the State Hygienic Laboratory: Preventive Medicine lecture on "Disinfection," Nov. 22.

- Dr. Charles Mills Gayley, Prof. of the English Language and Literature: Great books lecture on "A Continuation of Euripides," Nov. 22.
- Prof. B. J. Morris, of the College of the Pacific: Paper read before the Philosophical Union on "The Social Contract. The Fundamental Concept of Individualism. Individual Rights and Social Control," Nov. 22.
- Dr. Jessica B. Peixotto, Asst. Prof. of Social Economics: Preventive Medicine lecture on "Social Economics in Relation to Public Health," Nov. 29.
- Dr. Edgar L. Hewett, Director of the School of American Archaeology at Santa Fé, New Mexico, and Visiting Lecturer of the Archaeological Institute of America: "Recent Excavations at Quirigua, Guatemala." Clayton Herrington, Federal Prosecutor, San Francisco: League of the Republic lecture on "The National Government and the White Slave Traffic," Dec. 3.
- Israel Abrahams, M.A., of Cambridge University: Public lecture on "The Parables," Dec. 3.
- "Pharisaism," Dec. 4.
- "Forgiveness and Atonement," Dec. 5.
- Dr. Thomas Forsyth Hunt, Dean of the College of Agriculture, Director of the Agricultural Experiment Station, and Professor of Agriculture: Forestry Club lecture on "Forestry Work and its Possibilities," Dec. 4.
- Warren Charles Perry: Illustrated lecture on "The Gothic Cathedrals of France," Dec. 11.
- Dr. Har Dayal, Lecturer on Hindu Philosophy: Lecture before the Philosophical Union on "Anarchism and the State," Dec. 20.

SECOND HALF-YEAR 1912-13

- O. M. Washburn, Asst. Prof. of Classical Archaeology: Illustrated lecture on "Homer's Troy," Jan. 14.
- Frederick R. Benson, Director of various English Pageants: Public lecture on "The Art of Pageantry," Jan. 15.
- Miss Anna Klumpke: Public lecture before the Art History Circle on "Personal Recollections of Rosa Bonheur," Jan. 16.
- E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Illustrated lecture on "Woman as an Industrial Factor in the Evolution of the Race," Jan. 19 and 26, Feb. 2.
- Dr. Joseph Grinnell, Director of the Cal. Museum of Vertebrate Zoology: Public lecture on "Midwinter Birds on the University Campus," Jan. 20.

- Oliver M. Washburn, Asst. Prof. of Classical Archaeology: Public lecture on "Thera, a Greek Pompeii," Jan. 21.
- Dr. H. K. Schilling, Prof. of German Language and Literature: Public lecture on "Das Nibelungenlied," Jan. 22 and 24.
- Dr. Joseph Grinnell, Director of the Cal. Museum of Vertebrate Zoology: Public lecture on "Field Identification of Birds," Jan. 27.
- Thomas H. Reed, Assoc. Prof. of Government: League of the Republic lecture on "The Place of Political Parties in Democratic Government," Jan. 28.
- Dr. W. M. Hart, Assoc. Prof. of English Philology: Public lecture on "Old French Tales," Jan. 29.
- Dr. W. M. Hart, Assoc. Prof. of English Philology: Public lecture on "Guy de Maupassant," Jan. 31.
- Dr. George R. Noyes, Assoc. Prof. of Slavic Languages: Lecture before the Philosophical Union on "The Essential Elements in Tolstoy's Ethical and Social Theories," Jan. 31.
- J. J. Jessup, City Engineer of Berkeley: Mining Ass'n lecture on "Garbage Incineration and Furnace Construction," Jan. 31.
- T. T. Waterman, Instr. in Anthropology: Public lecture on the "Art of the Plains Indians of North America," Feb. 2.
- Dr. Joseph Grinnell, Director of the Cal. Museum of Vertebrate Zoology: Public lecture on "Nests and Eggs of Our Local Birds," Feb. 3.
- M. Firmin Roz, the French essayist and critic: A series of public lectures: "La Crise de la sensibilité française au XVIII^e siècle. J. J. Rousseau et les origines du Romantisme," Feb. 3.
- "Les Provinces dans le roman contemporain," Feb. 4.
- "Le Théâtre d'aujourd'hui. Ses rapports avec les mœurs contemporaines," Feb. 5.
- Dr. Eugen Kühnemann, Prof. of Philosophy in the University of Breslau: Public lecture on "Schiller und das Volk der Gegenwart," Feb. 3.
- Ralph P. Merritt, Comptroller of the University: League of the Republic lecture on "The Modern Idea in University Finance," Feb. 4.
- Dr. Oliver M. Washburn, Asst. Prof. of Classical Archaeology: Public lecture on "Miletus, the Birthplace of Universities," Feb. 4.
- Dr. T. T. Waterman, Instr. in Anthropology: Public lecture on "The Decorative Art of New Guinea," Feb. 9.
- E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "The Evolution of Marriage," Feb. 9.
- Dr. Joseph Grinnell, Director of the Cal. Museum of Vertebrate Zoology: Public lecture on "Water Birds of San Francisco Bay," Feb. 10.

- Dr. David P. Barrows, Prof. of Political Science and Dean of the Graduate School: League of the Republic lecture on "The Growth of the Republican Party and its Opportunities as a Party of Opposition," Feb. 11.
- Dr. Oliver M. Washburn, Asst. Prof. of Classical Archaeology: Public lecture on "Priene, a Hellenistic City," Feb. 11.
- W. D. Armes, Assoc. Prof. of American Literature: Public lecture on "Shakespeare's England," Feb. 14.
- Dr. T. T. Waterman, Instr. in Anthropology: Public lecture on "The Decorative Art of the Alaskan Indians," Feb. 16.
- E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "The Rise of Woman," Feb. 16.
- Dr. Joseph Grinnell, Director of the Cal. Museum of Vertebrate Zoology: Public lecture on "Some Mammals of California and their Economic Relations," Feb. 17.
- John O. Davis, Chairman of the Democratic State Central Committee: League of the Republic lecture on "The Democratic Party; the Opportunities Before It," Feb. 18.
- Dr. Oliver M. Washburn, Asst. Prof. of Classical Archaeology: Public lecture on "Delphi and the Oracle of Apollo," Feb. 18.
- Dr. T. T. Waterman, Instr. in Anthropology: Public lecture on "Conventionalization in Primitive Art," Feb. 23.
- E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "The Indians of the Terraced Houses," Feb. 23.
- William H. Crane: Public lecture on "The Development of the American Stage during the Last Fifty Years," Feb. 25.
- Ira B. Cross, Prof. of Economics, Stanford University: League of the Republic lecture on "The Utopian Socialists," Feb. 25.
- W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "Why Young People Leave the Country; Signs of Decadence," Feb. 26.
- Dr. A. W. Ryder, Asst. Prof. of Sanskrit: Public lecture before the Hindu Students' National Ass'n on "Kalidasa, the Shakespeare of India," March 1.
- E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "The Rise of Woman," March 2.
- Dr. A. L. Kroeber, Assoc. Prof. of Anthropology and Curator of the Anthropological Museum: Public lecture on "Before the Incas of Peru," March 2.

Dr. Robert Stewart, Prof. of Chemistry and Vice-Director of the Agricultural Experiment Station of the Utah Agricultural College: Three public lectures as follows:

"The Intensity of Nitrification in Arid Soils," March 3.

"Organic Phosphorus in Soils," March 4.

"The Relation of Agricultural Education to the Food Supply of the Future," March 5.

Ira B. Cross, Prof. of Economics, Stanford University: League of the Republic lecture on "The Scientific Socialists," March 4.

Dr. William E. Ritter, Prof. of Zoology and Scientific Director of the Scripps Institution for Biological Research: Public lecture on "Ethical and Educational Problems from their Biological Aspect," March 4.

W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "Country Life Optimism," March 5.

Hugo H. Miller, '05, Head of the Industrial Information Department, Bureau of Education for the United States Government in the Philippine Islands: Illustrated lecture before the College of Commerce Club on "The Industries of the Philippines, with Particular Reference to the Commerce of the Pacific Coast," March 5.

E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "The Indians of California," March 9.

Dr. Oliver M. Washburn, Asst. Prof. of Classical Archaeology: Public lecture on "Color in Greek Art," March 9.

Rabbi Martin A. Meyer, Lecturer in Semitic Literature and History: Public lecture on "Judæo-Hellenistic Literature," March 11.

Ira B. Cross, Prof. of Economics, Stanford University: League of the Republic lecture on "The Syndicalists," March 11.

W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "Rural Social Life, Old and New," March 12.

Dr. A. L. Kroeber, Assoc. Prof. of Anthropology and Curator of the Anthropological Museum: Public lecture on "The Great Oceanic Races," March 16.

E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "The Evolution of Marriage," March 16.

W. D. Armes, Assoc. Prof. of American Literature: Public lecture on "The England of Milton and Dryden," March 17.

Rabbi Martin A. Meyer, Lecturer in Semitic Literature and History: Public lecture on "Judæo-Palestinean Literature," March 18.

Ira B. Cross, Prof. of Economics, Stanford University: League of the Republic lecture on "The Anarchists," March 18.

Dr. Joel Hildebrand, of the University of Pennsylvania: Public lecture on "The Use of the Hydrogen Electrode in Analytical and Technical Chemistry," March 18.

"The Fixation of Nitrogen," March 19.

W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "Rural Social Reconstruction—Attendant Difficulties," March 19.

Dr. T. T. Waterman, Instr. in Anthropology: Public lecture on "In Darkest New Guinea," March 23.

Dr. Oliver M. Washburn, Asst. Prof. of Classical Archaeology: Public lecture on "The Greek Vase Painter's Art," March 23.

Dr. William E. Ritter, Scientific Director of the Scripps Institution for Biological Research, and Prof. of Zoology: Public lecture on "The Conditions Determining the Location of the Scripps Institution at La Jolla," March 24.

W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "Rural Social Institutions—The Country Home," March 26.

Dr. A. L. Kroeber, Assoc. Prof. of Anthropology and Curator of the Anthropological Museum: Public lecture on "The Malaysians and their Civilization," March 30.

Hon. J. Stitt Wilson, Mayor of Berkeley: League of the Republic lecture on "The Modern Political Socialist," April 1.

W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "The Country School," April 2.

E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "Brown Men and Women of the Pacific," April 6.

Eugen Neuhaus, Instr. in Drawing: Public lecture on "Pioneers of California Art," April 6.

W. D. Armes, Assoc. Prof. of American Literature: Illustrated public lecture on "The England of Pope and Johnson," April 7.

Dr. R. G. Aitken, Astronomer at the Lick Observatory: Public lecture on "The Sun as a Star," April 8.

Rabbi Martin A. Meyer, Lecturer in Semitic Literature and History: Public lecture on "Some Rabbinical Parallels to the New Testament," April 8.

W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "The Country Church," April 9.

Dr. R. G. Aitken, Astronomer at the Lick Observatory: Public lecture on "The Sun in Eclipse," April 10.

Dr. J. C. Merriam, Prof. of Palaeontology and Historical Geology: Public lecture on "Excavations in the Asphalt Beds of Rancho La Brea," April 10.

- Dr. T. T. Waterman, Instr. in Anthropology: Public lecture on "Ancient Cities of Mexico," April 13.
- Dr. David P. Barrows, Prof. of Political Science: Public lecture at the University Museum in San Francisco on "Head Hunters of the Philippines," April 13.
- Dr. W. W. Campbell, Director of the Lick Observatory: Illustrated lecture on "Some Recent Studies of Our Stellar System," April 14.
- Astronomer W. H. Wright, Lick Observatory: Public lecture on "The Solar Radiation," April 15.
- T. J. Cooper, of the Cooper Advertising Agency: League of the Republic lecture on "The Part Publicity Plays in the Modern Campaign," April 15.
- Mlle. Rebecca Godechaux, Public lecture before the Cerele Français on "La Morale dans le Théâtre de Maeterlinck," April 15.
- John Leslie Dobbin, '05, Prof. of Railway Engineering, Imperial Pei Yang University, Tientsin, China: Tau Beta Pi lecture, open to the public, on "Railway Development in China," April 15.
- W. B. Herms, Asst. Prof. of Applied Parasitology: Public lecture on "The Call for Rural Leadership—The Challenge of the Country," April 16.
- Prof. Maynard M. Metcalf, Oberlin College: Beta Kappa Alpha, annual public address (illustrated), "The Evolution of the Mechanism of Inheritance," April 18.
- E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "Cannibal Blacks of the Pacific," April 20.
- Dr. William E. Ritter, Scientific Director of the Scripps Institution for Biological Research, and Prof. of Zoology: Public lecture on "Something about the Movements and Temperature of the Ocean off the California Coast, and the Influence of these on the Climate," April 21.
- Astronomer Heber D. Curtis, Lick Observatory: Public lecture on "Applications of Photography to Astronomy," April 22.
- Prof. H. G. Hollister, University of Illinois: Public lecture on "Determining Principles of the Curricula of the Schools," April 23.
- Bishop Samuel Fallows, of Chicago: Public lecture on "The Philippine Islands," April 23.
- Astronomer Heber D. Curtis, Lick Observatory: Public lecture on "Theories of Comets," April 24.
- Eugen Neuhaus, Instr. in Drawing: Public lecture on "The Outlook of Art in California," April 26.

Dr. A. L. Kroeber, Assoc. Prof. of Anthropology and Curator of the Anthropological Museum: Public lecture on "The Most Primitive Race: The Aborigines of Australia," April 27.

William W. Guth, President, College of the Pacific: Public lecture before the Philosophical Union on "Christianity and Socialism," May 2.

E. W. Gifford, Asst. Curator of the University Museum of Anthropology: Public lecture on "Easter Island, the Mystery of the Pacific," May 4.

Dr. A. O. Leuschner, Prof. of Astronomy and Director of the Students' Observatory: Annual address before the Sigma Xi Society, May 7.

DEATHS OF MEMBERS OF THE UNIVERSITY

Bacon, Thomas Rutherford, Professor of Modern European History, March 26, 1913.

Ehrenfeld, Leon, of the class of 1914, College of Natural Sciences, April 17, 1913.

Frisselle, Ralph, General Manager of the Kearney Vineyard, September 16, 1912.

Hallett, Eugene Russell, of the class of 1905, Alumni Representative on the Executive Committee of the Associated Students, October 27, 1912.

Jacobs, Lester Henry, Lecturer in the Law of Insurance, March 23, 1913.

Pohli, Austin Ramon, of the class of 1914, May 20, 1913.

Reynolds, Bert Raymond, of the class of 1916, College of Social Sciences, November 11, 1912.

Sherman, Minna Eshelman, a Regent of the University, April 21, 1913.

Soulé, Frank, Professor of Civil Engineering, Emeritus, February 14, 1913.

Stewart, Arthur Chambers, of the class of 1914, College of Agriculture, April 25, 1913.

BIBLIOGRAPHY*

PUBLISHED WRITINGS OF OFFICERS OF THE UNIVERSITY

(July 1, 1912, to June 30, 1913)

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- Review: *Alder and Hancock: The British Tunicata*. (Science, n.s., vol. xxxvii, no. 951, pp. 451-453; March 21, 1913.)
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 Three Centuries of Don Quixote. (U. C. Chronicle, vol. xv, no. 2, p. 1; April, 1913.)
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- Phycotheca Boreali-Americana [with Frank S. Collins]. (Fasciel xxxviii; Dec., 1912.)
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- Double Standard in Regard to Fighting. (International Conciliator, no. 59, p. 1; Oct., 1912.)
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- VARTH, HARRY S., Curator of Birds, Cal. Museum of Vertebrate Zoology.
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The Supposed Occurrence of the Blue Goose in California. (Condor, vol. xv, no. 1, p. 43; Feb. 8, 1913.)
William Leon Dawson—A Biography. (*Ibid.*, vol. xv, no. 2, pp. 62-69; March 25, 1913.)
- AIT, DUDLEY, Asst. in Experimental Surgery.
Presidential Address. (Cal. State Jour. of Med., vol. xi, no. 2, p. 282; Feb. 1, 1913.)
Recurrence of Hydrocele after Radical Treatment. (*Ibid.*, no. 7, p. 258; July 1, 1913.)
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 The Electromotive Force Produced by the Acceleration of Conductors (Science, vol. xxxvii, no. 944, p. 192; Jan. 31, 1913.)
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 The General Principles of Equilibria in Divided Systems. (*Ibid.*, vol. xxxv, no. 4, p. 307; April, 1913.)
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 New Proper Motion Stars. (Pub. A. S. P., vol. xxiv, p. 274; Dec. 1912.)
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 Vol. XX, Argentine National Observatory at Córdoba. (*Ibid.*, p. 90; April, 1913.)
 Diurnal Variation in the Refraction at Mount Hamilton. (L. O. F., vol. vii, no. 229, p. 127; April, 1913.)
 Absolute Scale of Stellar Magnitudes. (Pub. A. S. P., vol. xxv, p. 14; June, 1913.)
 Riefler Clock of the Lick Observatory. (*Ibid.*, p. 169; June, 1913.)
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A Theory of Sub-Standard Lives. (Trans. of the Actuarial Soc. of Am., vol. xiii, no. 48, p. 282; Oct. 17, 1912.)

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A Discussion by Synthetic Methods of Two Projective Pencils of Conics. (Univ. Calif. Publ. Math., vol. i, no. 3, p. 39; Feb. 28, 1913.)

VAN NORMAN, HERBERT EVERETT, Vice-Director and Dean, University Farm School.

Circular: Increasing Dairy Profits. (U. C. Agr. Exp. Sta. Circ., no. 97; April, 1913.)

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WICKSON, EDWARD JAMES, Prof. of Horticulture.

California Vegetables in Garden and Field; 3rd edition. (Pac. Rural Press, S. F.; May, 1913.)

SUNDAY HALF-HOURS OF MUSIC IN THE GREEK THEATRE

(OPEN TO THE PUBLIC)

1912

- June 30—Miss Esther Houk, contralto, and Warren D. Allen, pianist.
- July 7—Mrs. Grace Hartzell Britton, lyric soprano; Miss Martha Washington Dukes, accompanist; and Albert B. Herrman, bass-baritone; Mrs. William Aydelotte, accompanist.
- July 14—Mrs. Fay Wright-Harrison, pianist, and Miss Fern Lenore Frye, vocalist, presented by Fred S. Robbins.
- July 21—Robert D. McLure, baritone, and Miss Stella Howell, pianist.
- July 28—Miss Carrie Gobel-Weston, violinist; Miss Marion Provost, accompanist; and Alexander Hull, baritone; Mrs. Eva Hummer Hull, accompanist.
- Aug. 25—Miss Edith Gowans, contralto, assisted by Mrs. R. Roy Cowles, first violin; Raymond Garthwaite, second violin; James Hamilton Todd, Jr., viola; Thomas T. Rieger, 'cello; Mrs. Edwin Garthwaite, piano, and Miss Mildred Porter, piano.
- Sept. 1—Fifth Regiment Band, N. G. C., Captain George W. Hollister, bandmaster.
- Sept. 8—Mr. and Mrs. Georg Krüger, pianists.
- Sept. 15—Miss M. Marguerite Hughes, soprano; Miss Aldanita Wolfskill, contralto; Thomas W. Pearson, basso; Miss Harriet Pasmore, and H. B. Pasmore, accompanists; presented by H. B. Pasmore.
- Sept. 22—Miss Imogen G. Peay, pianist, and Miss Lena M. Frazee, contralto.
- Sept. 29—Mrs. Zilpha R. Jenkins, soprano; Mrs. Ruth Waterman Anderson, contralto; Carl Edwin Anderson, tenor; and Henry L. Perry, bass; W. E. Riggs, accompanist, on the pianola: by the courtesies of Messrs. Kohler & Chase.
- Oct. 6—Miss Sarah Unna, presented by Hugo Mansfeldt.
- Oct. 13—The Zech Orchestra, William F. Zech, conductor.

- Oct. 20—Miss Beatrice Clifford, pianist, assisted by Mrs. Cecil Mark, soprano.
- Oct. 27—Cecilia Choral Club, 125 voices, under the direction of Percy A. R. Dow; Mrs. Robert M. Hughes, accompanist.
- Nov. 3—Mrs. Richard Rees, soprano; Roscoe Warren Lucy, accompanist. (Announced, but not given on account of rain.)
- Nov. 17—The Hughes Club, D. P. Hughes, conductor; Mrs. Robert Hughes, accompanist.
- Nov. 24—Mrs. Richard Rees, soprano; Roscoe Warren Lucy, accompanist.
- Dec. 1—Mrs. Maria Simons, contralto, and Hawley B. Hickman, 'cellist; Miss Elizabeth Westgate, accompanist.

1913

- Mar. 2—The Sierra Mixed Quartette: Mrs. Zilpha Ruggles Jenkins, soprano; Carl Edwin Anderson, tenor; Mrs. Ruth Waterman Anderson, contralto; Lowell Moore Redfield, baritone; Mrs. Mabel Hill Redfield, accompanist.
- Mar. 9—The Wednesday Morning Choral Club: Mrs. Walter H. Henry, president; Paul Steindorff, director; Mrs. Mabel Hill Redfield, accompanist.
- Mar. 16—Miss Ruth Bowers, soprano; Earl Parrish, tenor; Leon Ettinger, baritone; J. C. Armstrong, accompanist: presented by Clinton R. Morse.
- Mar. 23—No concert (inclement weather.)
- Mar. 30—University of California Glee Club, assisted by the Berkeley Singers' Club, Clinton R. Morse, director; Roscoe Warren Lucy, accompanist.
- Apr. 6—Male Clef of the Berkeley Young Men's Christian Association. Lowell Moore Redfield, director; Mrs. Mabel Hill Redfield, accompanists.
- Apr. 13—First Presbyterian Church Choir, Oakland, under the direction of Percy A. R. Dow.
- April 20—University of California Cadet Band, Captain Leroy W. Allen, director.
- April 27—The University Madrigal Singers, Professor Charles Louis Seeger, director; and Robert D. McLure, baritone; Miss Stella Howell, accompanist.
- May 4—The La Monaca Band of Santa Barbara, Cesare La Monaca, director.

UNIVERSITY MEETINGS

1912

Aug. 19—President Benj. Ide Wheeler.

Aug. 30—John R. Freeman, Consulting Engineer, of Providence, R. I.
Dr. Ira W. Howerth, Prof. of Education and Director of
University Extension.

Sept. 13—Dr. Richard Clarke Cabot, of the Harvard Medical School.
Prof. Arthur Cushman McGiffert, of the Union Theological
Seminary.
Music: The University Cadet Band.

Sept. 27—Dr. David P. Barrows, Prof. of Political Science.
Mayor George W. Stone, of Santa Cruz. (This meeting was
held in conjunction with the League of California Municip-
alities.)

Oct. 11—Dr. Thomas Forsyth Hunt, Dean of the College of Agriculture,
Director of the Agricultural Experiment Station, and Prof.
of Agriculture.
Music: University Glee Club.

Oct. 25—The Rev. Dr. Charles F. Aked, of the First Congregational
Church, San Francisco.
Music: The University Mandolin Club. (The Cadet Band and
the University Glee Club led in student singing.)

Nov. 8—J. Arthur Elston, President of the Alumni Association.
Ralph P. Merritt, Comptroller of the University.
Herman H. Phleger, Secretary of the Alumni Association.
Milton H. Schwartz, of Oakland.
Music: Student singing, led by the University Cadet Band and
the University Glee Club.

Nov. 22—The Rev. Charles M. Sheldon, D.D., of Topeka, Kansas.
Music: Women's Mandolin Club.

- Dec. 3—Special University Meeting in honor of Regent Phoebe A. Hearst and in commemoration of her seventieth birthday.
Speakers: Regent Frederick W. Dohrmann, Dean Alexis F. Lange, Miss Harriet S. Judd, President of the Associated Women Students.
Music: University Cadet Band; University Chorus; Treble Clef Society; University Orchestra.

1913

- Jan. 31—Bishop Edwin H. Hughes, of San Francisco.
Music: University Glee Club.
- Feb. 14—The Right Rev. Edward J. Hanna, D.D. Bishop Auxiliary of San Francisco.
Music: The University Cadet Band.
- Feb. 28—The Rev. Dr. Francis Greenwood Peabody, Plummer Prof. of Christian Morals in Harvard University.
Music: The University Cadet Band.
- Mar. 14—Dean Edward Elliott, of Princeton University.
Mrs. Philip Snowdon, of London, England.
Music: The University Glee Club.
- Mar. 28—Prof. Shailer Mathews, Dean of the Divinity School of the University of Chicago, President of the Church Federation of America.
Music: The Treble Clef Society.
- Apr. 11—Hon. Winston Churchill.
Music: University Chorus; University Orchestra; Cadet Band.
- Apr. 25—Willard Walcott Beatty, Arthur Eaton, William Robert Greig, Mansell Penry Griffiths, Miss Harriet Stewart Judd, Miss Barbara Nachtrieb, Roy Arthur Silent, John Lowrey Simpson, Robert Gordon Sproul, Miss Evelyn Agnes Steel, Frederick Dorsey Stephens, John Allen Stroud, Clare Morse Torrey.

APPENDIX

SALARY ROLL

STATEMENT OF THE "STATE UNIVERSITY FUND"

STATEMENT OF PERMANENT BUILDING FUND

STATEMENT SHOWING THE SUMMER SESSION OF 1912

REVENUE RECEIPTS FOR THE YEAR ENDING JUNE 30, 1913

REVENUE EXPENDITURES FOR THE YEAR ENDING JUNE 30,
1913

SUMMARY OF REVENUE ACCOUNT AS AT JUNE 30, 1913

SUMMARY OF INCOME FOR THE YEAR ENDING JUNE 30, 1913

SUMMARY OF EXPENDITURES FOR THE YEAR ENDING JUNE
30, 1913

INCOME AVAILABLE FOR GENERAL EDUCATIONAL, ADMINIS-
TRATIVE, AND SCIENTIFIC PURPOSES IN 1912-13

INCOME, JULY 1, 1912, TO JUNE 30, 1913

EXPENDITURES, JULY 1, 1912, TO JUNE 30, 1913

SCHEDULES REFERRED TO IN THE BALANCE SHEET FOR JUNE
30, 1913

BALANCE SHEET, JUNE 30, 1913

STATISTICS COMPILED BY THE UNIVERSITY PHYSICIAN

STATISTICAL ADDENDA COMPILED BY THE RECORDER OF THE
FACULTIES

SALARY ROLL, TABLES OF INCOME AND EXPENDITURE, REVENUE ACCOUNT, AND BALANCE SHEET*

SALARY ROLL FOR 1912-13

Salaries are for the Year from July 1, 1912, to June 30, 1913,
unless otherwise stated.

Administration

	Salary	
B. I. Wheeler, President	\$12,000.00	
R. P. Merritt, Comptroller	5,000.00	
V. H. Henderson, Secretary and Land Agent	3,600.00	
Warren Olney, Jr., Attorney to the Board of Regents.....	3,600.00	
H. E. Gibson, Accountant	2,800.00	
F. P. Griffiths, Secretary to the President, \$2,000, and Lecturer in Law, \$500	2,500.00	
James Sutton, Recorder of the Faculties	2,400.00	
J. K. Fisk, Asst. to Recorder	1,200.00	
Lucy Stebbins, Dean of Women and Asst. Prof. of Social Economy	2,400.00	
N. Hovey, Purchasing Agent	2,200.00	
E. A. Hugill, Supt. of Grounds and Buildings.....	2,400.00	
A. H. Allen, Manager of the University Press (on leave without salary).		
May L. Cheney, Appointment Secretary	1,500.00	
F. C. Stevens, Stenographer to the President	1,320.00	
H. L. Wright, Cashier	1,200.00	
J. S. Bolin, Secretary to Dean of Faculties.....	600.00	
		\$44,720.00

Library

J. C. Rowell, Librarian	\$3,000.00	
H. L. Leupp, Assoc. Librarian	3,000.00	
H. R. Mead, Reference Librarian	1,600.00	
S. B. Mitchell, Head of Accessions Department.....	1,800.00	
C. B. Joeckel, Superintendent of Circulation.....	1,600.00	
Edwin Wiley, Classifier from May 1, 1913, to June 30, 1913, at \$2,250.00 per annum	375.00	
F. M. Bumstead, Senior Asst.	1,200.00	
E. M. Coulter, Senior Asst.	1,200.00	
Carried forward	\$13,775.00	\$44,720.00

* Compiled by the Comptroller.

LIBRARY—(Continued)

Brought forward	\$13,775.00	\$44,720.00
	Salary	
E. K. Walker, Senior Asst. from July 1, 1913, to August 31, 1913, at \$1,200.00 per annum	200.00	
A. I. Lyser, Senior Asst.	1,080.00	
J. A. Dean, Senior Asst.	960.00	
Sarah Oddie, Senior Asst.	1,080.00	
		\$17,095.00

Bancroft Library

F. J. Teggart, Curator of the Bancroft Library, and Assoc. Prof. of Pacific Coast History	\$3,000.00
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Agriculture

	Salary	
Thomas F. Hunt, Dean of College of Agriculture, Director of Agricultural Experiment Station, and Prof. of Agriculture, from October 1, 1912, to June 30, 1913, at \$8,000.00 per annum	\$6,000.00	
Herbert E. Van Norman, Vice Director of Agricultural Experiment Station, Dean of University Farm School, and Prof. of Dairy Management from February 14, 1913, to June 30, 1913, at \$5,000.00 per annum	1,875.00	
E. J. Wickson, Professor of Agriculture and Director of Experiment Station (on leave at full salary for one year to begin at the determination of the President)	4,000.00	
E. W. Hilgard, Emeritus Professor of Agriculture.....	2,666.00	
F. R. Marshall, Professor of Animal Industries.....	3,500.00	
Leroy Anderson, Professor of Dairy Industry (on leave at two-thirds salary, from January 1, 1913, to June 30, 1913)	2,500.00	
M. E. Jaffa, Professor of Nutrition, and in charge of Poultry Station, without salary.		
C. W. Woodworth, Professor of Economic Entomology.....	2,700.00	
R. H. Loughridge, Professor of Agricultural Chemistry Emeritus (\$1,420.00 paid by Carnegie Foundation).....	1,466.00	
G. W. Shaw, Associate Professor of Experimental Agronomy and Agricultural Technology (on leave at two-thirds salary, from January 1, 1913, to June 30, 1913)	2,250.00	
R. E. Smith, Professor of Plant Pathology (on leave at two-thirds salary)	1,866.00	
G. E. Colby, Assistant Professor of Agricultural Chemistry, in charge of Laboratory of Agricultural Chemistry.....	2,000.00	
H. J. Quayle, Assistant Professor of Entomology (on leave for second half year at two-thirds salary)	1,833.30	
W. T. Clarke, Associate Professor of Horticulture and Superintendent of University Extension in Agriculture..	2,400.00	
John S. Burd, Associate Professor of Agricultural Chemistry, in charge of Fertilizer Control.....	2,400.00	
Carried forward	\$37,456.30	\$64,815.00

AGRICULTURE—(Continued)

<i>Brought forward</i>	\$37,456.30	\$64,815.00
	Salary	
C. M. Haring, Assistant Professor of Veterinary Science....	2,200.00	
E. B. Babcock, Assistant Professor of Agricultural Education	2,200.00	
F. T. Bioletti, Associate Professor of Viticulture.....	2,700.00	
Wm. B. Herms, Assistant Professor of Applied Parasitology	1,900.00	
C. J. Wight, Assistant in Botany and Horticulture, University Farm, from September 1, 1912, to June 30, 1913, at \$960.00 per annum	800.00	
H. J. Webber, Professor of Plant Breeding, Director of Citrus Experiment Station, and Dean of the Graduate School of Tropical Agriculture, from December 1, 1912, to June 30, 1913, at \$6,000.00 per annum (on leave without salary, from April 1, 1913, to June 30, 1913)..	2,000.00	
Chas. F. Shaw, Professor of Soil Technology, from January 1, 1913, to June 30, 1913, at \$3,000.00 per annum	1,500.00	
J. W. Gregg, Prof. of Floriculture and Landscape Gardening, from January 1, 1913, to June 30, 1913, at \$3,000.00 per annum	1,500.00	
H. S. Baird, Instructor in Dairy Husbandry	1,200.00	
J. B. Neff, Conductor of Farmers' Institutes	1,000.00	
E. J. Lea, Assistant Professor of Agricultural Chemistry.....	1,800.00	
C. H. McCharles, Instructor in Agricultural Chemistry.....	1,400.00	
E. H. Hagemann, Instructor in Dairying	1,600.00	
T. F. Hunt, Plant Pathologist	1,500.00	
E. H. Smith, Instructor in Plant Pathology.....	1,300.00	
C. O. Smith, Instructor in Plant Pathology	1,300.00	
A. J. Gaumnitz, Assistant Agronomist, from July 1, 1912, to March 31, 1913, at \$1,800 per annum	1,350.00	
P. L. McCreary, Chemist in Fertilizer Control, from July 1, 1912, to November 30, 1912, at \$1,600.00 per annum	666.65	
Walter H. Dore, Assistant Chemist in Fertilizer Control, from December 1, 1912, to June 30, 1913, at \$1,200.00 per annum	700.00	
M. E. Stover, Assistant in Agricultural Laboratory.....	1,200.00	
P. L. Hibbard, Instructor in Agricultural Chemistry.....	1,400.00	
G. A. Coleman, Curator in Entomological Museum	900.00	
D. L. Bunnell, Secretary to Director	1,100.00	
A. M. Cleghorn, Principal of University Farm School and Instructor in English and History	1,900.00	
Fred H. Bolster, Instructor in Botany and Horticulture....	1,500.00	
Wm. T. Horne, Assistant Professor of Plant Pathology.....	2,000.00	
J. E. Coit, Associate Professor of Pomology, from July 1, 1912, to December 31, 1912, at \$2,400.00 per annum, and Professor of Citriculture, from January 1, 1913, to June 30, 1913, at \$3,000.00 per annum.....	2,700.00	
B. A. Madson, Instructor in Experimental Agronomy.....	1,500.00	
C. B. Lipman, Associate Professor of Soils.....	2,200.00	
<i>Carried forward</i>	\$82,472.95	\$64,815.00

AGRICULTURE—(Continued)

<i>Brought forward</i>	\$82,472.95	\$64,815.00
	Salary	
L. Bonnet, Instructor in Viticulture	1,100.00	
J. E. Dougherty, Assistant Professor Poultry Husbandry.....	1,600.00	
Herbert L. Belton, Instructor in Shop Work, University Farm School, from February 1, 1913, to June 30, 1913, at \$1,200.00 per annum	500.00	
Carl S. Milliken, Field Agent in Frost Damage Survey, from February 1, 1913, to June 30, 1913, at \$1,800.00 per annum	750.00	
R. M. Roberts, Manager University Farm, from July 1, 1912, to November 30, 1912, at \$1,900.00 per annum..	791.65	
C. R. George, Instructor in Animal Industries	1,300.00	
R. H. Taylor, Instructor in Horticulture, University Farm..	1,200.00	
L. M. Davis, Assistant Professor in Dairy Industry, Uni- versity Farm	1,700.00	
Kate Fizell, Matron of Dormitory and Manager of Dining Hall	960.00	
S. S. Rogers, Plant Pathologist	1,500.00	
W. E. Packard, Experimental Agronomist, in charge of Imperial Valley Station	1,800.00	
F. L. Griffin, Instructor Agricultural Education.....	1,400.00	
E. Thomas, Assistant Chemist in Southern California Laboratory	1,300.00	
J. I. Thompson, Assistant Professor in Animal Industry.....	1,800.00	
C. M. Titus, Instructor in Mathematics and Surveying at University Farm	1,600.00	
F. C. H. Flossfeder, Instructor in Viticulture	1,400.00	
John C. Bridwell, Instructor in Entomology	1,600.00	
A. B. Shaw, Assistant in Entomology, from July 1, 1912, to December 31, 1912, at \$750.00 per annum	375.00	
Edwin C. Van Dyke, Assistant in Entomology, from Feb- ruary 1, 1913, to June 30, 1913, at \$750.00 per annum	312.50	
W. G. Hummel, Assistant Professor of Agricultural Edu- cation	1,600.00	
R. C. Ingram, Instructor in Shop Work	1,400.00	
S. H. Beckett, Instructor in Irrigation	720.00	
G. P. Gray, Chemist in Insecticides	1,300.00	
W. A. Boys, Assistant in Experimental Agronomy, from July 1, 1912, to September 30, 1912, at \$1,000.00 per annum	250.00	
H. D. Young, Chemist at Whittier	1,600.00	
A. R. Tylor, Assistant Plant Pathologist at Whittier	1,300.00	
W. V. Cruess, Assistant in Zymology	1,200.00	
Katherine Jones, Assistant in Agricultural Education	720.00	
C. L. Roadhouse, Instructor in Veterinary Science	1,900.00	
F. M. Hayes, Instructor in Veterinary Science	1,900.00	
J. F. Mitchell, Assistant in Hog Cholera Immunization.....	1,400.00	
Wm. H. Arnold, Instructor in Chemistry and Botany, University Farm	1,400.00	
<i>Carried forward</i>	\$122,152.10	\$64,815.00

AGRICULTURE—(Concluded)

<i>Brought forward</i>	\$122,152.10	\$64,815.00
	Salary	
James Koeber, Instructor in Farm Mechanics	1,300.00	
H. H. Warner, Student Assistant in Plant Breeding	300.00	
W. G. Perrine, Superintendent of Greenhouses and Gardens	1,500.00	
A. E. Way, Field Assistant in Viticulture	600.00	
G. Barovetto, Viticultural Assistant	780.00	
Paul S. Burgess, Instructor in Soils	1,300.00	
F. H. Wilson, Assistant in Soils	1,000.00	
W. F. Gericke, Instructor in Soils	1,200.00	
J. L. Denny, Foreman Cereal Work	900.00	
Walter W. Bonns, Assistant Professor of Pomology and Plant Physiologist at Riverside	2,000.00	
Walter M. Mertz, Assistant in Pomology, Riverside	1,100.00	
Edith Milhous, Clerk Southern California Pathological Laboratory	900.00	
Meredith R. Miller, Assistant Chemist, Insecticide Lab- oratory	1,200.00	
Adele S. Jaffa, Lecturer in Dietetics	300.00	
Earl Morris, Field Assistant in Santa Clara County in a study of the Life History of the California Peach Root Borer and Treatment thereof (without salary).		
W. H. Volck, Field Assistant in Monterey County in the Control of Potato Worm, and in Santa Cruz County in special study of control measures for the woolly aphis (without salary).		
		\$136,532.10

Anatomy

R. G. Moody, Assistant Professor of Anatomy	\$2,200.00	
R. W. Harvey, Instructor in Anatomy (on leave without salary).		
P. E. Smith, Instructor in Anatomy	1,500.00	
A. M. dal Piaz, Instructor in Anatomy, from July 1, 1912, to October 31, 1912, at \$1,400.00 per annum.....	466.64	
Irene A. Patchett, Assistant in Anatomy	600.00	
Ruby L. Cunningham, Assistant in Anatomy (on leave without salary).		
E. F. Miller, Technical Assistant in Anatomy	1,200.00	
R. G. Sharp, Assistant in Anatomy	600.00	
		\$6,566.64

Anthropology

A. L. Kroeber, Associate Professor of Anthropology, and Curator of Anthropological Museum	\$2,400.00	
T. T. Waterman, Instructor in Anthropology	1,300.00	
E. W. Gifford, Assistant Curator of Anthropological Museum	1,500.00	
Arthur Warburton, Preparator	960.00	
		\$6,160.00
<i>Carried forward</i>		\$214,073.74

Brought forward

\$214,073.74

Architecture

	Salary	
J. G. Howard, Professor of Architecture	\$5,000.00	
Mary L. Kissell, Associate Professor of Domestic Art.....	2,400.00	
W. C. Hays, Assistant Professor of Architecture (part time)	1,200.00	
H. W. Seawell, Instructor in Water Coloring and Pen and Ink Drawing	800.00	
M. Earl Cummings, Instructor in Modeling	600.00	
W. Perry, Instructor in Architecture	1,000.00	
Bessy Sprague, Librarian and Clerk	840.00	
		<hr/>
		\$11,840.00

Astronomy

A. O. Leuschner, Professor of Astronomy and Director of Students' Observatory	\$3,300.00	
R. T. Crawford, Associate Professor of Practical Astronomy	2,400.00	
S. Einarsson, Instructor in Practical Astronomy	1,200.00	
E. S. Haynes, Instructor in Astronomy	1,200.00	
S. Nicholson, Teaching Fellow in Astronomy	600.00	
Anna E. Glancy, Watson Assistant	600.00	
		<hr/>
		\$9,300.00

Botany

W. A. Setchell, Professor of Botany	\$3,600.00	
W. L. Jepson, Associate Professor of Dendrology (on leave at two-thirds salary)	1,466.64	
H. M. Hall, Assistant Professor of Economic Botany and Assistant Botanist to Agricultural Experiment Station....	2,000.00	
A. R. Moore, Assistant Professor of Physiology	1,700.00	
T. H. Goodspeed, Instructor in Botany	1,000.00	
R. E. Clausen, Assistant in Botany	500.00	
J. E. Guernsey, Assistant in Botany	500.00	
C. W. Shuquist, Janitor and Mechanic	780.00	
C. A. Purpus, Botanical Collector (without salary).		
T. S. Brandegee, Honorary Curator in the Herbarium (without salary).		
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		\$11,546.64

Celtic

J. J. O'Hegarty, Reader in Irish	\$600.00
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Chemistry

G. N. Lewis, Professor of Physical Chemistry	\$5,000.00
E. O'Neill, Professor of Inorganic Chemistry and Director of the Chemical Laboratory	4,000.00
W. C. Blasdale, Associate Professor of Chemistry	2,200.00
W. C. Bray, Assistant Professor of Chemistry	2,200.00

Carried forward \$13,400.00 \$247,360.38

SALARY ROLL

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CHEMISTRY—(Continued)

<i>Brought forward</i>	\$13,400.00	\$247,360.38
	Salary	
R. C. Tolman, Assistant Professor of Chemistry	1,600.00	
W. C. Morgan, Assistant Professor of Chemistry (on leave at two-thirds salary)	1,333.32	
H. C. Biddle, Assistant Professor of Chemistry	2,000.00	
Edward Booth, Assistant Professor of Chemistry	1,700.00	
Harry W. Morse, Lecturer in Chemistry (for one year).....	3,000.00	
C. E. Burke, Instructor in Chemistry	1,200.00	
L. Rosenstein, Instructor in Chemistry	1,200.00	
W. N. Lacey, Assistant in Chemistry	900.00	
R. L. Sebastian, Assistant in Chemistry	400.00	
E. Anderson, Assistant in Chemistry	500.00	
O. L. Brauer, Assistant in Chemistry	900.00	
W. L. Argo, Assistant in Chemistry	900.00	
J. T. Winkler, Assistant in Chemistry	600.00	
W. Meyer, Assistant in Chemistry	600.00	
W. J. Barnhill, Assistant in Chemistry	500.00	
P. W. Christman, Assistant in Chemistry	500.00	
W. N. Davis, Assistant in Chemistry	400.00	
E. D. Eastman, Assistant in Chemistry	400.00	
Maebelle E. Jewell, Clerk	900.00	
Constance Gray, Bookkeeper (from October 1, 1912, at \$1,000.00 per annum)	750.00	
Merle Randall, Research Assistant in Chemistry	900.00	
P. V. Faragher, Teaching Fellow	600.00	
G. E. K. Branch, Teaching Fellow	600.00	
C. Gilman, Storekeeper	1,100.00	
C. McLaughlan, Laboratory Mechanic, from August 1, 1912, to June 30, 1913, at \$1,100.00 per annum.....	1,008.26	
J. N. Francis, Mechanic (from August 1, 1912, to June 23, 1913, at \$1,300.00 per annum)	1,164.55	
C. Best, Glass Blower (from November 1, 1912, to Febru- ary 28, 1913, at \$1,200.00 per annum)	390.00	
E. H. Fosdick, Glassblower (from February 15, 1913, to June 30, 1913, at \$1,200.00 per annum)	450.00	
J. Hildebrand, Lecturer in Technical Chemistry	150.00	
Mrs. Sarah F. L. Rising (Carnegie Foundation allow- ance as widow of the late W. G. Rising)	1,035.00	
		\$41,081.13

Civil Engineering

C. Derleth, Jr., Professor of Civil Engineering	\$4,000.00	
F. Soulé, Professor of Civil Engineering, Emeritus, from July 1, 1912, to March 14, 1913, at \$2,200.00 per an- num (salary as to \$1,440.36 paid by Carnegie Founda- tion)	1,548.12	
Mrs. A. S. Soulé (Carnegie Foundation allowance as widow of late F. Soulé)	303.07	
<i>Carried forward</i>	\$5,851.19	\$288,441.51

CIVIL ENGINEERING—(Continued)

<i>Brought forward</i>	\$5,851.19	\$288,441.51
	Salary	
C. G. Hyde, Professor of Sanitary Engineering (on leave at two-thirds salary)	2,200.00	
F. S. Foote, Jr., Associate Professor of Railroad Engineering	2,400.00	
H. J. Kesner, Assistant Professor of Civil Engineering.....	1,600.00	
A. C. Alvarez, Instructor in Civil Engineering.....	1,400.00	
A. J. Eddy, Instructor in Civil Engineering	1,200.00	
H. S. Griswold, Instructor in Civil Engineering	1,400.00	
G. I. Gay, Instructor in Civil Engineering	1,300.00	
R. A. White, Instructor in Civil Engineering	1,100.00	
Val. Arntzen, Expert Mechanic in Civil Eng. Lab.	1,800.00	
Nettie Meek, Clerk	1,000.00	
H. H. Harder, Assistant in the Testing Laboratory	900.00	
M. N. Bryant, Helper in Testing Laboratory	660.00	
		<hr/>
		\$22,811.19

Dentistry

J. G. Sharp, Professor of the Principles and Practice of Surgery, and Dean	\$1,000.00	
G. S. Millberry, Superintendent and Professor of Chemistry and Metallurgy	3,000.00	
H. B. Carey, Instructor in Anatomy, Histology, Materia Medica and Therapeutics	600.00	
W. F. Sharp, Professor of Prosthetic Dentistry	500.00	
J. D. Hodgen, Professor of Operative Dentistry	500.00	
J. B. Tufts, Professor of Dental Pathology and Therapeutics	500.00	
G. L. Bean, Professor of Dental Porcelain	500.00	
H. T. Moore, Lecturer in Surgery	100.00	
S. W. Hussey, Instructor in Extracting	100.00	
A. H. Suggett, Lecturer in Orthodontia	150.00	
F. B. Kenward, Assistant in Dental Porcelain	100.00	
J. E. Gurley, Instructor in Chemistry	150.00	
M. T. Rhodes, Demonstrator in Clinical Dentistry	100.00	
O. P. Roller, Special Instructor in Dental Porcelain	100.00	
L. Bartlett, Lecturer in Dental Jurisprudence	50.00	
R. E. Keys, Librarian	300.00	
M. Goddard, Instructor in Comparative Anatomy	100.00	
S. L. Dod, Reader in Dental Pathology and Therapeutics.....	100.00	
F. E. Hart, Instructor in Dental Technics	1,200.00	
Henry Morrow, Instructor in Prosthetic Technics (\$400 payable from Donation by Dental Faculty).....	2,400.00	
G. R. Hubbell, Instructor in Radiography	100.00	
C. C. McQuaid, Clinical Instructor in Dental Pathology and Therapeutics	100.00	
S. B. Scott, Assistant Demonstrator in Dental Technics.....	100.00	
		<hr/>
<i>Carried forward</i>	\$11,850.00	\$311,252.70

DENTISTRY—(Continued)

<i>Brought forward</i>	\$11,850.00	\$311,252.70
	Salary	
S. E. Bailey, Assistant in Physiology (from January 1, 1913, to June 30, 1913, at \$600.00 per annum).....	300.00	
C. B. Porter, Assistant in Dental Porcelain (without salary).....		
		\$12,150.00

NOTE.—J. V. Cooke receives from Dentistry \$500 of his total salary of \$2,400.00 as Assistant Professor of Pathology in the Medical Department.

Drawing

H. Kower, Associate Professor of Drawing	\$2,700.00	
W. J. Wythe, Assistant Professor of Drawing	1,800.00	
C. C. Judson, Assistant Professor of Drawing	1,800.00	
H. B. Monges, Instructor in Drawing	1,400.00	
K. E. Neuhaus, Instructor in Drawing	1,100.00	
Perham Nahl, Assistant in Drawing	500.00	
		\$9,300.00

Economics

A. C. Miller, Flood Professor of Political Economy and Commerce	\$4,000.00	
C. C. Plehn, Professor of Finance on the Flood Foundation..	3,300.00	
H. R. Hatfield, Professor of Accounting on the Flood Foundation and Secretary of the College of Commerce (professorial salary \$3,300.00; secretary \$300.00)	3,600.00	
A. W. Whitney, Associate Professor of Insurance and Mathematics (one-third chargeable to mathematics).....	2,400.00	
L. Hutchinson, Assistant Professor of Commerce on the Flood Foundation (leave of absence on two-thirds of \$2,200.00 pay)	1,466.66	
Jessica B. Peixotto, Assistant Professor of Social Economics	2,000.00	
Stuart Daggett, Assistant Professor of Railway Economics on the Flood Foundation	2,000.00	
Solomon Blum, Instructor in Political Economy (from July 1, 1912, to December 31, 1912, at \$1,000.00 per annum)	500.00	
Carleton H. Parker, Instructor in Economics (from January 1, 1913, to June 30, 1913, at \$1,500.00 per annum)	750.00	
Chester T. Wright, Instructor in Commercial Geography.....	1,000.00	
Lilian Matthews, Assistant in Social Economy	600.00	
Lewis Lilly, Assistant in Accounting	800.00	
T. N. Dean, Flood Fellow in Economics	400.00	
G. C. Jensen, Flood Fellow in Economics	400.00	
Lucy Stebbins, Assistant Professor of Social Economy (without salary other than that chargeable to administration).....		
		\$23,216.66
<i>Carried forward</i>		\$355,919.36

Brought forward \$355,919.36

Education

	Salary
A. F. Lange, Professor of the Theory and Practice of Education, and Dean of the Faculties (the Professorship at \$4,000.00, the Deanship at \$500.00)	\$4,500.00
I. W. Howerth, Professor of Education, and Director of University Extension	4,000.00
C. E. Rugh, Associate Professor of Education	2,700.00
W. Scott Thomas, Assistant Professor of Education, and School Examiner	2,200.00
R. G. Boone, Lecturer in Education	3,000.00
John Swett, Honorary Lecturer in Education (without salary).	
	<hr/> \$16,400.00

English

C. M. Gayley, Professor of the English Language and Literature	\$4,500.00
C. B. Bradley, Professor of Rhetoric, Emeritus (\$1,750.00 of this amount paid by Carnegie Foundation).....	1,800.00
C. W. Wells, Associate Professor of English Composition.....	2,700.00
W. D. Armes, Associate Professor of American Literature, \$2,000, and Chairman of Music and Dramatic Committee, \$500.00 (this last item chargeable to administration salaries)	2,500.00
M. C. Flaherty, Associate Professor of Forensics	2,400.00
W. M. Hart, Associate Professor of English Philology	2,400.00
T. F. Sanford, Assistant Professor of English Literature.....	1,900.00
B. P. Kurtz, Assistant Professor of English (on leave at two-thirds salary)	1,266.66
G. A. Smithson, Instructor in English Philology	1,400.00
C. D. von Neumayer, Instructor in Public Speaking	1,500.00
F. T. Blanchard, Instructor in English	1,300.00
H. E. Cory, Instructor in English	1,300.00
G. R. MacMinn, Instructor in English, \$1,200.00, and Acting Manager of University Press, \$500	1,700.00
L. Bacon, Instructor in English	1,200.00
H. L. Bruce, Teaching Fellow in English	600.00
G. F. Richardson, Teaching Fellow in English.....	600.00
N. B. Drury, Teaching Fellow in Forensics	600.00
	<hr/> \$29,666.66

Geography

R. S. Holway, Assistant Professor of Physical Geography....	\$2,000.00
W. G. Reed, Instructor in Climatology	1,100.00
	<hr/> \$3,100.00
Carried forward	<hr/> \$405,086.02

Brought forward \$405,086.02

Geology and Mineralogy

Salary

A. C. Lawson, Professor of Mineralogy and Geology	\$4,000.00
G. D. Louderback, Associate Professor of Geology.....	2,200.00
A. S. Eakle, Assistant Professor of Mineralogy	2,000.00
E. F. Davis, Instructor in Mineralogy and Geology	1,000.00
E. Behr, Assistant in Mineralogy and Geology (from July 1, 1912, to December 31, 1912, at \$600.00 per annum) ..	300.00
A. Werner Lawson, Assistant in Mineralogy and Geology (from January 1, 1913, to June 30, 1913, at \$600.00 per annum)	300.00
A. R. Whitman, Assistant in Mineralogy and Geology	600.00
R. M. Rowe, Assistant in Mineralogy and Geology (from July 1, 1912, to May 31, 1913, at \$900.00 per annum)	825.00
Fred E. Bourne, Assistant in Mineralogy and Geology (from June 1, 1913, to June 30, 1913, at \$900.00 per annum)	75.00
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	\$11,300.00

German

H. K. Schilling, Professor of German Language and Literature	\$4,000.00
A. Putzker, Professor of German Literature, Emeritus (\$1,500.00 of this salary paid by the Carnegie Found.) ..	2,000.00
J. H. Senger, Associate Professor of German	2,400.00
L. J. Demeter, Assistant Professor of German	1,900.00
C. Paschall, Assistant Professor of German	1,700.00
R. Pinger, Assistant Professor of German	1,700.00
P. E. Weithaase, Assistant in German	900.00
Paul Boehncke, Assistant in German	900.00
Sophie Wolff, Assistant in German (from July 1, 1912, to February 28, 1913, at \$500.00 per annum)	333.28
Marga von Hungen, Assistant in German (from March 1, 1913, to June 30, 1913, at \$500.00 per annum)	166.64
F. Schneider, Teaching Fellow in German	500.00
O. E. Plath, Teaching Fellow in German	500.00
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	\$16,999.92

Greek

E. B. Clapp, Professor of the Greek Language and Literature	\$4,000.00
Isaac Flagg, Professor Emeritus of Greek (paid by the Carnegie Foundation)	1,600.00
J. T. Allen, Associate Professor of Greek	2,400.00
I. M. Linforth, Assistant Professor of Greek (on leave at two-thirds salary)	1,266.66
A. P. McKinlay, Instructor in Latin and Greek (one-half this amount is charged to the Department of Greek and half to the department of Latin; the name is listed also under Latin)	1,200.00
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	\$10,466.66

Carried forward \$443,852.60

Brought forward

\$443,852.60

History

	Salary
H. Morse Stephens, Sather Professor of History	\$5,000.00
T. R. Bacon, Professor of Modern European History (on leave at two-thirds salary, from July 1, 1912, to April 26, 1913, at \$2,000.00 per annum)	1,644.37
H. E. Bolton, Professor of American History	4,000.00
L. J. Paetow, Assistant Professor of Medieval History	2,000.00
W. A. Morris, Assistant Professor of English History	2,000.00
R. F. Scholz, Assistant Professor of Ancient History.....	2,000.00
E. I. McCormac, Assistant Professor of American History....	1,800.00
G. C. Davidson, Teaching Fellow in History	600.00
J. G. Iliff, Teaching Fellow in History	600.00
J. Van Nostrand, Teaching Fellow in History	600.00
W. L. Schurz, Teaching Fellow in History	600.00
K. C. Leebrick, Teaching Fellow in History	600.00
F. J. Teggart, Associate Professor of Pacific Coast History, and Honorary Curator of the Bancroft Library (salary appears under Bancroft Library).	

 \$21,444.37
Hygiene

G. F. Reinhardt, Professor of Hygiene and University Physician (\$2,000 chargeable to Infirmary)	\$4,000.00
John N. Force, Assistant Professor of Epidemiology (\$300.00 chargeable to Infirmary)	1,500.00
Romilda Paroni, Lecturer in Hygiene and Medical Examiner (\$600.00 chargeable to Infirmary)	1,500.00
A. M. Meads, Infirmary Physician (chargeable to Infirmary)	1,200.00
Clarence W. Page, Medical Examiner (from August 1, 1912, to December 31, 1912, at \$1,200.00 per annum)	500.00
W. H. Campbell, Medical Examiner (from January 1, 1913, to June 30, 1913, at \$1,200.00 per annum)	600.00
Marion O. Hooker, Assistant Medical Examiner (chargeable to Infirmary)	1,000.00
Ethel Sherman, Superintendent of Infirmary (chargeable to Infirmary)	1,200.00
W. A. Sawyer, Director of State Hygienic Laboratory (salary paid by the State).	

 \$11,500.00
Irrigation

B. A. Etcheverry, Associate Professor of Irrigation Engineering	\$2,400.00
A. E. Chandler, Assistant Professor of the Institutions of Irrigation	1,800.00

 \$4,200.00

Carried forward

 \$480,996.97

Brought forward \$480,996.97

Jurisprudence

	Salary
W. C. Jones, Professor of Jurisprudence	\$4,000.00
O. K. McMurray, Professor of Law	5,000.00
G. H. Boke, Professor of Law	3,000.00
A. M. Kidd, Assistant Professor of Law	2,000.00
C. G. White, Lecturer in Law	500.00
Max Thelen, Lecturer in Law	500.00
L. H. Jacobs, Lecturer in the Law of Insurance (from July 1, 1912, to April 23, 1913, at \$1,000.00 per annum)	813.84
A. G. Tasheira, Lecturer in Law	500.00
M. E. Harrison, Lecturer in Commercial Law	500.00
W. E. Colby, Lecturer in Law of Mines	500.00
M. C. Lynch, Instructor in Law	1,500.00
Rosamond Parma, Librarian and Clerk	1,000.00
A. P. Matthew, Lecturer on Law of Interstate Trans- portation	500.00
C. H. Lindley, Honorary Professor of Law of Mines and Water (without pay).	
Warren Olney, Jr., Lecturer in Law (on leave without salary).	

NOTE.—F. P. Griffiths, Lecturer in Law, \$500, appears in
Administration salaries.

\$20,313.84

Latin

W. A. Merrill, Professor of the Latin Language and Liter- ature	\$4,000.00
L. J. Richardson, Associate Professor of Latin	2,400.00
Clifton Price, Assistant Professor of Latin	1,900.00
H. C. Nutting, Assistant Professor of Latin	2,000.00
O. M. Washburn, Assistant Professor of Classical Arch- aeology, and Dean of the Lower Division (with added \$500.00 chargeable to Administration; total salary \$2,500.00)	2,500.00
Torsten Petersson, Instructor in Latin	1,500.00
S. B. Clark, Instructor in Latin	1,500.00
A. P. McKinlay, Instructor in Latin and Greek for one year (chargeable one-half to Latin and one-half to Greek; salary appears under Greek).	
M. E. Deutsch, Instructor in Latin (on leave without pay)	

\$15,800.00

Carried forward \$517,110.81

Brought forward

\$517,110.81

Lick Observatory

	Salary
W. W. Campbell, Director and Astronomer	\$5,000.00
R. H. Tucker, Astronomer	2,400.00
H. D. Curtis, Astronomer	2,700.00
R. G. Aitken, Astronomer	2,700.00
W. H. Wright, Astronomer	2,400.00
R. E. Wilson, Assistant	1,320.00
G. F. Paddock, Assistant (from August 24, 1912, to June 30, 1913, at \$1,000.00 per annum)	854.80
K. Burns, Martin Kellogg Fellow (from August 1, 1912, to June 30, 1913, at \$1,200.00 per annum)	1,100.00
P. W. Merrill, Fellow	600.00
J. H. Pitman, Fellow	600.00
C. Kiess, Fellow	600.00
Ruth Standen, Secretary (on leave without salary during the month of June, 1913)	916.63
Clarice Davis, Secretary (from June 1, 1913, to June 30, 1913, at \$1,000.00 per annum)	83.33
J. E. Hoover, Carpenter	1,380.00
H. Bachman, Instrument Maker	1,350.00

D. O. Mills Fund

F. H. Moore (Chile), Acting Astronomer in charge of the D. O. Mills Expedition	2,750.00
R. F. Sanford (Chile), Assistant	1,800.00
Mrs. J. H. Moore, Assistant	1,110.00
Miss A. M. Hobe, Assistant	1,050.00

 \$30,714.76
Mathematics

M. W. Haskell, Professor of Mathematics (on leave first half-year at two-thirds salary)	\$3,000.00
G. C. Edwards, Professor of Mathematics	3,000.00
C. A. Noble, Associate Professor of Mathematics, and Assistant Examiner of Schools	2,200.00
D. N. Lehmer, Associate Professor of Mathematics	2,400.00
T. M. Putnam, Assistant Professor of Mathematics (on leave second half-year at two-thirds salary)	2,000.00
J. H. McDonald, Assistant Professor of Mathematics	1,800.00
C. Kuschke, Instructor in Mathematics	1,300.00
B. A. Bernstein, Instructor in Mathematics	1,300.00
J. D. Maddrill, Instructor in Mathematics	1,200.00
F. Irwin, Instructor in Mathematics	1,500.00
T. Buck, Instructor in Mathematics	1,500.00
Elsie M. Elrick, Teaching Fellow in Mathematics	600.00
Penelope Sittman, Teaching Fellow in Mathematics	600.00

 Carried forward \$22,400.00

 \$547,825.57

MATHEMATICS—(Continued)

<i>Brought forward</i>	\$22,400.00	\$547,825.57
	Salary	
G. F. Michelbacher, Teaching Fellow in Mathematics.....	600.00	
Mrs. Martha S. D. Stringman (Carnegie Foundation allowance as widow of the late Professor Irving Stringham)	960.00	
B. M. Woods, Instructor in Mathematics (on leave without salary).		
NOTE.—A. W. Whitney appears under department of Economics.		
		\$23,960.00

Mechanics

C. L. Cory, John W. Mackay, Jr., Professor of Electrical Engineering and Director of Electric Light and Power Plant	\$4,000.00	
Robert Sibley, Prof. of Mechanical Engineering	3,000.00	
J. N. LeConte, Professor of Engineering Mechanics	2,700.00	
H. F. Fischer, Assistant Professor of Electrical Engineering	1,600.00	
C. F. Gilcrest, Instructor in Electrical Engineering	1,400.00	
A. B. Domonoske, Instructor in Mechanical Engineering (from July 1, 1912, to January 31, 1913, at \$1,100.00 per annum)	641.62	
B. D. Moses, Instructor in Mechanical Engineering	1,000.00	
W. C. Fox, Clerk	1,000.00	
G. E. Cox, Assistant in Mechanics and Foreman in Woodwork	1,600.00	
James George, Assistant in Mechanics and Foreman in Ironwork	1,400.00	
V. Petrovsky, Assistant in Engineering Mechanics	600.00	
A. F. Bridge, Mackay Fellow	600.00	
J. H. Moseley, Mackay Fellow	600.00	
		\$20,141.62

Medicine

Herbert C. Moffitt, Dean	\$2,400.00	
J. V. Cooke, Assistant Professor of Pathology and Director of the Laboratory of Animal Experimentation (\$500.00 chargeable to Dentistry)	2,400.00	
J. L. Whitney, Assistant in Medicine	766.00	
LeRoy H. Briggs, Assistant in Medicine	766.00	
E. S. Kilgore, Assistant in Medicine	766.00	
Sterling Bunnell, Assistant in Surgery	900.00	
Saxton Pope, Assistant in Surgery	900.00	
Anna K. Davenport, Assistant in Surgery	720.00	
Mary M. Wismer, Assistant to Dean (to September 30, 1912, at \$1,800.00 per annum, payable from donation of salary by Dr. Moffitt)	450.00	
<i>Carried forward</i>	\$10,068.00	\$591,927.19

MEDICINE—(Continued)

Brought forward	\$10,068.00	\$591,927.19
	Salary	
Gwendolan Newell, Assistant to Dean (from September 1 to December 31, 1912, at \$1,500.00 per annum, and from January 1 to June 30, 1913, at \$1,680.00 per annum, payable from donation of salary by Dr. Moffitt) ..	1,340.00	
W. Jarvis Barlow, Dean of the Los Angeles Department (without salary)		\$11,408.00

Military Science and Tactics

E. M. Lewis, Professor of Military Science and Tactics (from July 1 to September 2, at \$800.00 per annum) ..	\$135.54	
J. T. Nance, Professor of Military Science and Tactics (from September 2, 1912, to June 30, 1913, at \$800.00 per annum)	664.38	\$799.92

Mining

S. B. Christy, Professor of Mining and Metallurgy	\$4,000.00	
E. B. Durham, Associate Professor of Mining	2,400.00	
E. A. Hersam, Associate Professor of Metallurgy	2,400.00	
W. S. Morley, Assistant Professor of Metallurgy	2,000.00	
George Spencer, Mechanician	1,200.00	
E. P. Willoughby, Helper	1,000.00	
N. Wilkie, Clerk	900.00	
J. F. Talbot, Storekeeper and Helper	1,000.00	
L. C. Uren, Assistant in Mining and Mechanical Draughtsman (from September 16, 1912, to June 30, 1913, at \$1,500.00 per annum)	1,187.50	\$16,087.50

Music

C. L. Seeger, Jr., Professor of Music	\$3,000.00	
Paul Steindorff, Choragus	1,000.00	\$4,000.00

Oriental Languages

John Fryer, Agassiz Professor of Oriental Languages and Literature	\$4,000.00	
Y. S. Kuno, Instructor in Japanese	1,100.00	
E. James, Assistant in Chinese	720.00	\$5,820.00

Palaeontology

J. C. Merriam, Professor of Palaeontology and Historical Geology	\$3,300.00	
B. L. Clark, Instructor in Palaeontology	1,300.00	
J. Guintyllo, Assistant in Palaeontology	1,100.00	\$5,700.00

Carried forward \$635,742.61

Brought forward \$635,742.61

Pathology

	Salary	
F. P. Gay, Professor of Pathology	\$4,500.00	
J. G. Fitzgerald, Associate Professor of Bacteriology	2,500.00	
G. Y. Rusk, Assistant Professor of Pathology	2,000.00	
I. C. Hall, Assistant in Bacteriology	900.00	
Grace F. Griffiths, Assistant in Bacteriology (without salary).		
		<hr/>
		\$9,900.00

Philosophy

G. H. Howison, Professor of Philosophy, Emeritus (\$2,875 paid by the Carnegie Foundation)	\$3,000.00	
G. M. Stratton, Professor of Psychology	4,000.00	
C. H. Rieber, Professor of Logic and Dean of the Summer Session (for the professorship \$3,000.00, and for the deanship \$1,000.00, chargeable to Summer Session)..	4,000.00	
A. U. Pope, Assistant Professor of Philosophy	1,900.00	
G. P. Adams, Assistant Professor of Philosophy	1,900.00	
C. I. Lewis, Instructor in Philosophy	1,300.00	
W. Brown, Instructor in Psychology	1,500.00	
		<hr/>
		\$17,600.00

Physical Culture

W. E. Magee, Professor of Physical Culture	\$2,200.00	
V. V. Ligda, Assistant Professor of Physical Culture (from July 1, 1912, to December 31, 1912, at \$1,500.00 per annum)	750.00	
F. L. Kleeberger, Assistant Professor of Physical Culture (from January 1, 1913, to June 30, 1913, at \$1,500.00)	750.00	
Genevra E. Magee Assistant in Physical Culture	1,000.00	
R. M. Scott, Assistant in Physical Culture	1,000.00	
Louise A. Place, Assistant in Physical Culture	840.00	
C. E. Wells, Assistant in Physical Culture	480.00	
Violet Richardson, Assistant in Physical Culture (from September 1, 1912, to April 30, 1913, at \$480.00)	320.00	
		<hr/>
		\$7,340.00

Physics

F. Slate, Professor of Physics	\$4,000.00	
E. P. Lewis, Professor of Physics	3,300.00	
W. J. Raymond, Associate Professor of Physics	2,500.00	
S. S. Minor, Associate Professor of Physics (\$200.00 payable from Whiting Fund)	2,700.00	
E. E. Hall, Associate Professor of Physics	2,500.00	
L. S. Elston, Instructor in Physics	1,600.00	
B. B. Abbott, Instructor in Physics	1,400.00	
V. R. Stamper, Mechanician	1,800.00	
		<hr/>
Carried forward	\$19,800.00	\$670,582.61

PHYSICS—(Continued)

Brought forward	\$19,800.00	\$670,582.61
	Salary	
O. G. Steinitz, Mechanician	1,500.00	
W. S. Wake, Assistant in Physics	500.00	
Robert J. McKay, Assistant in Physics	500.00	
R. Jungerman, Assistant in Physics	500.00	
D. I. Cone, Assistant in Physics	500.00	
J. D. Foster, Assistant in Physics	500.00	
G. A. Gallagher, Assistant in Physics	500.00	
O. R. Hull, Assistant in Physics	500.00	
R. G. McCurdy, Assistant in Physics	600.00	
A. H. Saxer, Whiting Fellow	600.00	
G. H. Bardsley, Whiting Fellow		\$26,500.00

Physiology and Physiological Chemistry

S. S. Maxwell, Associate Professor of Physiology	\$2,700.00	
T. B. Robertson, Associate Professor of Physiological Chemistry	2,700.00	
T. C. Burnett, Instructor in Physiology	1,400.00	
L. R. Beauchamp, Technical Assistant	720.00	
C. B. Bennett, Assistant in Physiological Chemistry	600.00	
		\$8,120.00

Political Science

Bernard Moses, Professor of History and Political Science, Emeritus (\$2,400.00 of this amount paid by Carnegie Foundation)	\$2,666.00	
D. P. Barrows, Professor of Political Science \$4,000.00, and Dean of the Graduate School \$300.00.00	4,300.00	
T. H. Reed, Associate Professor of Government	2,200.00	
F. K. Krüeger, Assistant in Political Science	900.00	
		\$10,066.00

Printing Office

J. W. Flinn, Superintendent	\$2,400.00
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Romanic Languages

R. Schevill, Professor of Spanish	\$3,600.00	
Gilbert Chinard, Associate Professor of French	2,700.00	
J. T. Clark, Assistant Professor of Romanic Philology	2,000.00	
G. E. Faucheux, Assistant Professor of French Literature	1,900.00	
Carlos Bransby, Assistant Professor of Spanish	1,700.00	
C. H. S. Howard, Instructor in Spanish	1,500.00	
E. G. Atkin, Instructor in Romanic Languages	1,000.00	
Alfred Solomon, Instructor in French	1,400.00	
Mrs. J. H. Greenleaf, Instructor in French	1,300.00	
Emilio Goggio, Instructor in Italian	1,000.00	
Caroline Singleton, Instructor in French	1,000.00	
W. Girard, Instructor in French	1,000.00	
		\$20,100.00

Carried forward \$737,768.61

SALARY ROLL

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Brought forward \$737,768.61

Sanskrit

	Salary	
A. W. Ryder, Assistant Professor of Sanskrit		\$1,900.00

Semitic Languages

William Popper, Assistant Professor of Semitic Languages..	\$2,000.00
Martin Meyer, Lecturer in Semitic Literature and History (without salary).	

Slavic Languages

G. R. Noyes, Associate Professor of Slavic Languages.....	\$2,200.00
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Vertebrate Zoology

J. Grinnell, Director of the California Museum of Vertebrate Zoology.
H. S. Swarth, Curator of Birds.
W. P. Taylor, Curator of Mammals.
F. H. Holden, Assistant Curator in Osteology.

NOTE.—Salaries for these officers paid direct by Miss Annie M. Alexander.

Wilmerding School

George A. Merrill, Director	\$1,800.00	
George F. Wood, Vice-Principal and Instructor in Plumbing	2,100.00	
R. M. Grant, Instructor in Carpentry	1,500.00	
L. H. Werson, Instructor in Bricklaying	1,500.00	
J. E. Maybeck, Instructor in Cabinet Making	1,500.00	
Frank L. Dodge, Instructor in Electrical Work	1,500.00	
Julia M. Edwards, Instructor in English Branches	1,500.00	
W. Wirt, Instructor in Mathematics	1,500.00	
J. McHenry, Instructor in Architectural Drawing	1,500.00	
R. L. Cooke, Instructor in Science	1,200.00	
Florence Reinhold, Instructor in Freehand Drawing	1,200.00	
Gladys M. Elliott, Office Assistant	720.00	
J. E. Lozier, General Shop Assistant	1,200.00	
W. M. Keith, Temporary Assistant in Carpentry (from March 1 to 31, 1913, at \$600.00 per annum)	50.00	
		\$18,770.00

Zoology

W. E. Ritter, Professor of Zoology (\$2,000.00 paid from Scripps Institution for Biological Research)	\$3,000.00
C. A. Kofoed, Professor of Zoology	3,300.00
S. J. Holmes, Associate Professor of Zoology	2,500.00
J. F. Daniel, Assistant Professor of Zoology	1,700.00

<i>Carried forward</i>	\$10,500.00	\$762,638.61
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ZOOLOGY—(Continued)

<i>Brought forward</i>	\$10,500.00	\$762,638.61
	Salary	
J. A. Long, Instructor in Embryology	1,500.00	
A. L. Barrows, Assistant in Zoology	600.00	
A. C. Chandler, Assistant in Zoology	600.00	
J. C. Loshinski, Assistant in Zoology	600.00	
T. I. Storer, Assistant in Zoology	600.00	
G. E. Stone, Helper	900.00	
Elizabeth H. Purington, Agassiz Research Assistant in Zoology (from September 1, 1912, to June 30, 1913, at \$300.00 per annum)	250.00	
	<hr/>	\$15,550.00

Scripps Institution for Biological Research

W. E. Ritter Scientific Director (salary appears under Zoology).		
W. C. Crandall, Master of the "Alexander Agassiz" and Business Agent (from February 1, 1913, to June 30, 1913, at \$2,400.00 per annum)	\$1,000.00	
E. L. Michael, Administrative Assistant	1,200.00	
G. F. McEwen, Hydrographer	1,000.00	
	<hr/>	\$3,200.00
		<hr/>
		\$781,388.61
		<hr/>

STATEMENT OF EXPENDITURES FROM THE "STATE UNIVERSITY FUND" FOR THE YEAR ENDING JUNE 30, 1913

Administration:	
Salaries	\$89,260.68
Expense	51,442.72
Affiliated Colleges: Repairs and maintenance of grounds	2,525.38
Auditing	1,015.65
Equipment	2,246.36
Examination of Schools	1,934.03
Fellowships	4,000.00
Fuel (aside from oil)	1,415.58
Light, Power and Heating System	44,658.44
Postage	3,387.66
Administrative Printing	9,068.30
Publications	11,973.14
Repairs	18,874.62
Site improvement and maintenance	20,317.10
Stationery	1,766.47
Telephone, Telegraph and Express	6,231.81
Water	11,219.10
	<hr/>
	\$281,337.04
State of California Scholarships	3,500.00
University Library	67,083.39
Departmental Expenditures:	
Agriculture	\$49,414.46
Anatomy	10,246.60
Anthropology	9,980.15
Architecture	13,779.06
Astronomy (Berkeley department)	11,792.29
Botany	15,396.28
Chemistry	53,844.49
Civil Engineering	26,940.19
Drawing	9,449.76
Economics	6,274.18
Lick Observatory	27,188.58
Mathematics	24,777.46
	<hr/>
	259,083.50
Permanent Building Fund	203,668.00
	<hr/>
	\$814,671.93

CASH RECEIVED

1912	
October 4	\$400,000.00
1913	
February 13	100,000.00
March 1	313,764.63
March 4	907.30
	<hr/>
	\$814,671.93

PERMANENT BUILDING FUND

Expenditures on Construction Work, Etc., during the year ending
June 30, 1913

Affiliated Colleges, Hospital heating extension.....	\$512.57	
Affiliated Colleges, Hospital repairs	313.65	
Affiliated Colleges, Medical Department alterations..	11,612.10	
Affiliated Colleges, new boiler and connection.....	5,493.77	
Affiliated Colleges, Pathology Building heating.....	1,197.01	
Affiliated Colleges, steampipe Veterinary and Medical Building	630.60	
Affiliated Colleges, Veterinary and Hospital Building electrical work	2,558.85	
Architectural Building Annex	11,129.45	
Arc line additions	34.58	
Bacon Library alterations	367.75	
Barrow Street Property for Campus*	63,500.00	
California Hall equipment	2,125.44	
Chemistry Auditorium	20,810.43	
Chemistry Storehouse	10,107.56	
East Hall alterations, appropriation 1912-13.....	1,253.92	
East Hall alterations, appropriation 1913-14.....	332.64	
Grading for Drill Ground.....	34.04	
Harmon Gymnasium alterations.....	408.60	
New roads, California Hall to Agriculture Hall.....	4,536.16	
Nursery and propagation of plants and trees.....	293.50	
Rewiring buildings	83.00	
South Hall addition	5,463.80	
South Hall feed wires.....	415.79	
Student Observatory addition.....	630.76	
Tree planting, trail making, etc., East of Greek Theatre	3,468.35	
Agriculture Hall furnishings	50,896.52	
Boalt Hall furnishings	56.25	
Chemistry Auditorium furnishings	507.83	
President's house furnishings	310.50	
		<hr/>
		\$199,085.42

* Purchases have been made: transfer to this account will be made in 1914.

Interest on money borrowed from investment:

Monies on hand to carry out the provisions of the
"10-year programme:"

Half year to December 31, 1912, at 5.83757 + per cent	\$10,808.17
Half year to June 30, 1913, at 5.84816 + cent	11,138.45

\$21,946.62

Fourth installment of the "10-year programme:"

Agriculture Hall Building	\$20,000.00
Doe Library furnishings	20,000.00
Watershed lands	20,000.00

\$60,000.00

Total charged during year.....

\$281,032.04

Summary for Year

Expenditures as above	\$281,032.04	
Less amount charged in previous year in error.....	1.25	
		<hr/>
Balance on hand June 30, 1912.....	\$24,172.71	\$281,030.79
One-quarter of the State University Fund.....	203,668.00	
		<hr/>
		\$227,840.71
		<hr/>
Overdraft		\$53,190.08
		<hr/>

Note Regarding the "Ten-year Programme"

On April 13, 1909, it was voted that the University lend to itself such funds as may be necessary to carry out the following programme, interest to be charged to the Permanent Building Fund at the Endowment Pool Rate for moneys so advanced during the ten-year period:

Buildings	Chargeable Annually for 10 Years.	Total.
Agriculture Hall	\$20,000.00	\$200,000.00
Furnishings and equipment for the Library.....	20,000.00	200,000.00
Purchase of lands in Strawberry Cañon and adjacent thereto for watershed.....	20,000.00	200,000.00
	<hr/>	<hr/>
	\$60,000.00	\$600,000.00
	<hr/>	<hr/>

The actual work under these projects has cost to date as follows:

Agriculture Hall Building	\$211,913.95
Furnishings of Library	185,509.76
Watershed lands	167,655.88

\$565,079.59

Four instalments have been charged to Permanent Building Fund	\$240,000.00
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Leaving an amount of.....	\$325,079.59
still to be charged to the Permanent Building Fund.	<hr/>

Taking the above facts into consideration, the cash status of the Permanent Building Fund at June 30, 1913, is as follows:

Amount still to be paid for the "ten-year programme" as above	\$325,079.59
Overdraft as shown at beginning of this statement..	53,190.08

Cash overdraft which is borrowed from other funds of the University	<hr/>
	\$378,269.67

SUMMER SESSION OF 1912

Net Fees from Summer Session: after allowing for refund of fees and for \$2,130.00 transferred to Infirmary Fees Account, being \$1.00 on each complete \$15.00 fee retained.....		\$30,354.00
Admission to concerts		439.00
Admission to lectures, etc., for those not taking full course		1,669.75
Sale of Syllabi		86.45
Sale of supplies		4.05
Net receipts from course on Library Methods.....		49.53
Net amount retained from other fees and deposits, as follows:		
Anatomy	\$95.00	
Botany	232.50	
Chemistry	1,035.65	
Home Economics	399.73	
Manual Training	667.92	
Montessori Method	40.00	
Physics	490.00	
Public Health	166.20	
Zoology	35.50	\$3,162.50
Total income		\$35,765.28
Total expenditures		32,772.27
Excess of income over expenditures.....		\$2,993.01

RECEIPTS—REVENUE ACCOUNT

YEAR ENDING JUNE 30, 1913

(This represents income from the General Fund, i.e., of moneys not restricted to special purposes.)

State appropriations:

State University Fund	\$607,503.93
General support	100,000.00
To reimburse income	4,500.00

\$712,003.93

Endowment Pool Income:

On Consolidated Perpetual Endowment	\$114,356.57
On Lick Observatory Endowment	5,044.46

119,401.03

Students' Deposits and Fees (net):

Agriculture	\$738.75
Astronomy	255.00
Bacteriology	1,014.71
Botany	856.00
Changing courses	943.00
Chemistry	11,505.90
Civil Engineering	3,105.25
Delayed registrations	1,398.00
Gymnasium Suits—balance of account	157.16
Mechanics	2,373.25
Military Uniforms—Amounts not claimed	93.00
Mineralogy	423.25
Mining	1,015.00
Non-resident	5,640.00
Physics	4,906.45
Physiology	230.85
Special examinations	2,082.00
Zoology	1,237.65
Zymology	8.35

37,983.57

Interest on notes given for operations at Students' Infirmary

63.12

Summer Session of 1912 (Net balance: a complete statement of receipts and expenditures is shown on page 266)

2,993.01

University Extension

825.00

Sundry rents:

Cottages: Rents	\$3,067.82
Less repairs	759.60
	2,308.22
Such Ranch	377.83
Potrero avenue lots	120.00
Lick Observatory	80.00
Congressional land, Fresno County	24.00
Congressional land, San Luis Obispo County	235.06

3,145.11

Carried forward

\$876,414.77

<i>Brought forward</i>		\$876,414.77	
Dairying:			
Sale of produce	\$12,648.91		
Sale of livestock	405.25		
Sale of empty sacks	51.45		
			13,105.61
Dentistry:			
Fees and miscellaneous receipts			22,375.99
Medicine Fees, etc.:			
San Francisco and Berkeley	17,880.70		
Los Angeles	1,920.93		
			19,801.63
Storehouse:			
Profit (or excess of receipts over expenditures) for the year, after making due allowance for inventories on hand			820.30
Academy of Pacific Coast History:			
Excess of receipts over expenditures during the year (to be treated as an offset against the amount charged to revenue in the last fiscal year)			886.20
Publications, etc:			
Sale of Publications	\$2,030.42		
Sale of Syllabus:			
General	\$286.46		
Economics .....	.50		
Political Science	95.75		
		382.71	
			2,413.13
Reimbursement for labor and materials and work done for departments of the University: credit is given to departments for such work as follows:¹			
Departmental:			
Chemistry	\$487.94		
Civil Engineering	2,366.51		
Mechanics	394.53		
Military Science	2.41		
Pathology	106.86		
Physics	58.35		
Physiology	14.50		
		3,431.10	
Administrative:			
Equipment (sale of typewriter)	\$70.00		
Electric Light and Power	493.10		
Expense (gas, typewriting, mimeography, etc.)	565.28		
Janitors	837.64		
Library	233.17		
Postage	35.34		
<i>Carried forward</i>	\$2,234.53	\$3,431.10	\$935,817.63

¹ These reimbursements are shown in this manner so that the true receipts and expenditures of each of the departments may be obtained. To find the net cost of any one of the departments, deduct these receipts from the gross amounts shown on the expenditure side of the revenue account.

<i>Brought forward</i>	\$2,234.53	\$3,431.10	\$935,817.63
Printing Office (exclusive of publications which see) work done for departments	30,616.35		
Cash receipts for work done	1,555.70		
Publications	194.35		
*Repairs	3,030.61		
*Site	2,593.50		
Stationery .....	.95		
Telephone, Telegraph and Express	726.99		
Water	244.75		
		41,197.73	
			44,628.83

* In these two accounts, the structural work on buildings is not included.
Excess of receipts over expenditures accumulated on Agricultural Sales Funds, now closed off to Revenue (see also in "Expenditures")

Adams Fund Sales	\$324.54
California Educational Butter Scoring Contest	5.11
Cereal Sales	260.23
Plant Diseases Northern, Sales	10.00
Viticulture Sales	81.97
Garden and Greenhouse Sales	14.62
University Farm:	
Creamery	\$4,903.65
Dormitory	601.66
Poultry	316.60
Sales	22.51
Shop Sales	96.12
Stock Sales	468.64
Students' Deposits	178.36
Veterinary Sales	52.31
	6,639.85

7,336.32

Refunds payable to Students for balances on deposits, etc.
(this cancels all of the checks outstanding to June 30, 1912, which were not called for or presented at June 30, 1913):

Agriculture	\$25.95
Bacteriology .....	.10
Chemistry	960.71
Dairy	17.00
Diplomas	4,262.10
Histology	5.00
Mechanics	124.85
Medicine	11.00
Mineralogy	3.00
Mining	128.24
Physics	291.40
Physiology	21.25
Zoology	26.19

5,876.79

Carried forward

\$993,659.57

<i>Brought forward</i>		\$993,659.57
Miscellaneous:		
Sale of wood	\$70.70	
Certified copy of patents	30.00	
Sale of vegetables from Agricultural garden	31.31	
Supervising Examinations for Actuarial Society of America	10.00	
Civil Service Examinations	3.00	
Duplicate Diplomas	5.00	
Sale of old junk	28.75	
Sale of vault doors	35.00	
Library fines	584.00	
Transcript of records	1.50	
For exchange on checks .....	.55	
Excess allowed by State on claim .....	.17	
Donation to Physical Culture (balance) .....	.02	
Cash found in California Hall .....	.10	
Refund of amount advanced to Professor Moses for purchase of books	208.49	
Appraisement of lands	20.00	
		1,028.59
Taxes on Sylvan Way property, charged to Revenue in last year's account, since transferred against Associated Students Rent account		33.55
		<u>\$994,721.71</u>

CHARGES—REVENUE ACCOUNT

YEAR ENDING JUNE 30, 1913

(This represents expenditures from the General Fund, i.e., of moneys not restricted to special purposes.)

Agriculture:		
Salaries	\$32,161.71	
Current expenses	10,035.67	
		42,197.38
Forestry		1,499.60
Entomology		959.60
Bacteriology		591.40
Education		2,478.10
Issue of prospectus		1,207.88
Excess of expenditures over receipts accumulated on Agricultural Sales Funds now closed off to Revenue (see also in "Receipts.")		
Agricultural Experiment Station Sales	\$960.08	
Forestry sales	111.65	
Imperial County Investigation sales.....	32.35	
University Farm, general funds	1,039.95	
Summer Session course	14.61	
<i>Carried forward</i>	\$2,158.64	\$48,933.96

<i>Brought forward</i>		\$2,158.64	\$48,933.96	
Students' Deposits, Pomology	1.30			
Donation for Lima Bean investigation .....	.39			
State Appropriation Southern California				
Pathological Laboratory	42.23			
			<u>2,202.56</u>	
				51,136.52
Anatomy:				
Salaries		\$6,566.60		
Expenses		3,680.00		
				<u>10,246.60</u>
Anthropology:				
Salaries		\$6,159.96		
Expenses		3,820.19		
				<u>9,980.15</u>
Architecture:				
Salaries		\$11,839.80		
Expenses		1,939.26		
				<u>13,779.06</u>
Astronomy:				
Salaries		\$8,700.00		
Expenses		3,092.29		
				<u>11,792.29</u>
Bancroft Library:				
Salaries		\$3,000.00		
Expenses		3,849.94		
				<u>6,849.94</u>
Botany:				
Salaries		\$11,546.28		
Expenses		3,850.00		
				<u>15,396.28</u>
Celtic:				
Salaries				600.00
Chemistry: (see also "reimbursement for labor and materials, etc," on page 268):				
Salaries		\$33,553.76		
Expenses		16,368.45		
Special equipment		3,922.28		
				<u>53,844.49</u>
Civil Engineering (see also "reimbursement for labor and materials, etc," on page 268):				
Salaries		\$17,067.36		
Expenses		9,872.83		
				<u>26,940.19</u>
Dairying (see also sales of produce, etc., on page 268):				
Salaries		\$600.00		
Expenses		12,156.97		
				<u>12,756.97</u>
Dentistry:				
Salaries		\$12,249.88		
Expenses		13,246.83		
				<u>25,496.71</u>
				<u>\$238,819.20</u>
<i>Carried forward</i>				

<i>Brought forward</i>		\$238,819.20
Domestic Science:		
Expenses		558.97
Drawing:		
Salaries	\$9,299.76	
Expenses	150.00	
		9,449.76
Economics (see also cash received from sale of Syllabus on page 268):		
Salaries	\$3,575.23	
Expenses	2,698.95	
		6,274.18
Education:		
Salaries	\$15,899.88	
Expenses	90.13	
		16,490.01
English:		
Salaries	\$26,916.48	
Expenses	458.49	
		27,374.97
Geography:		
Salaries	\$3,099.84	
Expenses	450.00	
		3,549.84
Geology and Mineralogy:		
Salaries	\$11,299.80	
Expenses	1,809.18	
		13,108.98
German:		
Salaries	\$15,499.44	
Expenses	375.52	
		15,874.96
Greek:		
Salaries	\$8,266.56	
Expenses	160.00	
		8,426.56
History:		
Salaries	\$16,444.09	
Expenses	1,446.74	
		17,890.83
Hygiene:		
Salaries	\$4,099.92	
Expenses	2,015.89	
		6,115.81
Irrigation:		
Salaries	\$4,200.00	
Expenses	825.00	
		5,025.00
Jurisprudence:		
Salaries	\$20,813.04	
Expenses	658.31	
		21,471.35
<i>Carried forward</i>		\$390,430.42

CHARGES—REVENUE ACCOUNT

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<i>Brought forward</i>		\$390,430.42
Latin:		
Salaries	\$15,899.88	
Expenses	617.01	
		16,516.89
Library (see also "reimbursement for labor and materials, etc," on page 268):		
Salaries	\$16,974.92	
Assistance	18,294.69	
Equipment	175.96	
Expense	3,240.15	
Freight, Expressage, Insurance, etc.	1,129.80	
Binding	5,094.40	
Books	15,393.59	
Periodicals	6,434.88	
Completing Sets	345.00	
		67,083.39
Lick Observatory (subject to income from Endowment, see page 267):		
Salaries	\$22,904.68	
Expenses	9,408.36	
		32,313.04
Mathematics:		
Salaries	\$23,799.72	
Expenses	1,083.85	
		24,883.57
Mechanics (see also "reimbursement for labor and materials, etc," on page 268):		
Salaries	\$10,241.26	
Expenses	13,673.51	
		23,914.77
Medicine:		
San Francisco:		
Salaries	\$9,117.96	
Expenses	15,739.00	
		24,856.96
Los Angeles Department:		
Running expenses	12,370.85	
		37,227.81
University Hospital:		
Excess of expenditures over receipts	41,142.07	
		78,369.88
Military Science (see also "reimbursement for labor and materials, etc," on page 268):		
Salaries	\$799.92	
Expenses	2,328.22	
		3,128.14
Mining:		
Salaries	\$11,687.38	
Expenses	5,641.98	
		17,329.36
<i>Carried forward</i>		\$653,969.46

<i>Brought forward</i>		\$653,969.46
Music:		
Salaries	\$999.96	
Expenses	193.05	
		1,193.01
Oriental Languages:		
Salaries	\$1,819.92	
Expenses	103.49	
		1,923.41
Palaeontology:		
Salaries	\$5,699.88	
Expenses	650.00	
		6,349.88
Pathology (see also "reimbursement for labor and materials, etc," on page 268):		
Salaries	\$9,899.88	
Expenses	3,903.86	
		13,803.74
Philosophy:		
Salaries	\$6,724.92	
Expenses	1,866.60	
		8,591.52
Physical Culture:		
Salaries	\$7,379.88	
Expenses	1,050.56	
		8,430.44
Physics (see also "reimbursement for labor and materials, etc," on page 268):		
Salaries	\$17,252.78	
Expenses	10,207.48	
		27,460.26
Physiology (see also "reimbursement of labor and materials, etc," on page 268):		
Salaries	\$8,119.92	
Expenses	3,514.50	
		11,634.42
Political Science (see also cash received from sale of syllabus on page 268):		
Salaries	\$7,365.84	
Expenses	585.75	
		7,951.59
Romanic Languages:		
Salaries	\$20,099.52	
Expenses	1,202.65	
		21,302.17
Sanskrit:		
Salaries		1,899.96
Semitic Languages:		
Salaries		1,999.92
<i>Carried forward</i>		\$766,509.78

CHARGES—REVENUE ACCOUNT

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<i>Brought forward</i>		\$766,509.78
Slavic Languages:		
Salaries	\$2,199.96	
Expenses	26.84	
		2,226.80
University Extension:		
Expenses		801.15
Zoology:		
Salaries	\$13,299.96	
Expenses	3,400.00	
Administration:		16,699.96
Affiliated Colleges:		
Repairs and maintenance of grounds	\$2,525.38	
Auditing	1,015.65	
Electric Light and Power*		
Maintenance	\$42,658.44	
Current repairs	2,000.00	
		44,658.44
Equipment	2,246.36	
Examination of schools	1,934.03	
Expenses (for details see page 293 et seq.)*	51,687.60	
Fellowships	4,000.00	
Fuel	1,415.58	
Lectures	50.00	
Postage*	3,387.66	
Printing Office*		
Salaries	\$2,400.00	
Expenses	37,284.65	
		39,684.65
Publications*	11,949.01	
Repairs*		
Expenses	\$78,590.97	
Less work done for other depts., etc.....	59,716.35	
		18,874.62
Salaries:		\$183,428.98
Advisors	\$3,566.00	
Janitors*	36,100.00	
President's Contingent	3,000.00	
Administration	46,594.68	
		89,260.68
Stationery*	1,766.47	
Telephone, Telegraph and Expressage*	6,231.81	
University Site*		
Expenses	\$28,566.95	
Less work done for departments	8,249.85	
		20,317.10
Water*	11,219.10	
Short in taking in cash	19.49	
		312,243.63
Removal of Agricultural Department to new building		349.29
<i>Carried forward</i>		\$1,098,830.61

Those items marked with * are subject to reimbursements for work done: see receipts on pages 268 and 269 of the revenue account for these amounts.

<i>Brought forward</i>		\$1,098,830.61
Interest on daily balances:		
The Endowment Pool is credited with		
with interest at the Endowment Pool		
rate for the previous half year on		
average daily balance of investment		
moneys on hand, which amounted for		
the first half-year, at 5.8375778 per		
cent per annum, to	\$9,527.63	
For the second half-year at 5.8481666 per		
cent per annum	8,268.10	
		17,795.73
Less amount received from Treasurer for interest at		
two per cent per annum on daily balances	4,385.80	
		13,409.93
(This is equivalent to saying that the General Fund has bor-		
rowed money from the Investment Fund, paying 5.8375778 per cent		
per annum for it for the first half-year, and 5.8481666 per cent per		
annum for the second half-year.)		
Excess of expenditures over donations for making excava-		
tions at Rancho La Brea:		
Total expenditures	\$2,200.00	
Donations (for list of donors see page 00)	1,370.00	
		830.00
Barrow street property:		
Abstracts of property, taxes, insurance, etc.	\$505.49	
Rent received	400.15	
		105.34
Expenditures on alteration and equipment of		
buildings during the year:		
Affiliated Colleges: rewiring buildings	\$7.64	
Anatomy Building alterations	3,410.83	
Cereal and Soil Laboratory alterations	4,436.00	
Plant Diseases Laboratory equipment	480.50	
Civil Engineering Testing Laboratory	1,238.37	
East Hall alterations	1,081.60	
Nursery and Propagation of Plants and Trees	1,546.90	
Planting Plan for Campus	1,000.00	
Printing Office, heating	1,126.18	
Rewiring buildings at Berkeley	29.70	
South Hall alterations	6,420.92	
		20,778.64
		<u>\$1,133,954.52</u>

SUMMARY OF REVENUE ACCOUNT

Charges for 1912-13	\$1,133,954.52
Receipts for 1912-13	994,721.71
Excess of charges over receipts	139,232.81
Overdraft at June 30, 1912	15,406.56
Overdraft at June 30, 1913	<u>\$154,639.37</u>

SUMMARY OF INCOME, YEAR ENDING JUNE 30, 1913

From investments (excluding \$11,000 from State of California)	\$240,799.17		
United States	80,000.00		
State of California	1,152,020.41		
		\$1,472,819.58	
Students' Fees	\$137,415.83		
Dental Department	22,375.99		
Medical Department	17,880.70		
University Hospital	32,120.41		
Los Angeles Medical Department	1,920.93		
University Extension	825.00		
Sale of agricultural produce, etc.	151,830.14		
Miscellaneous	21,214.69		
Receipts from concerts, etc.	884.42		
		386,468.11	1,859,287.69
Gifts for current use	72,699.93		
Gifts for architectural expenses and for building work	53,915.00		
		126,614.93	1,985,902.62
Gifts of real estate and improvements.....	10,075.00		
Gifts for endowments	1,109,271.90		
		1,119,346.90	3,105,249.52
Turning over of funds (as repayment of loans, students' deposits due to be returned, etc.)		1,019,308.34	
		<u>\$4,124,557.86</u>	

SUMMARY OF EXPENDITURES, YEAR ENDING JUNE 30, 1913

Administration	\$316,383.02		
Library	82,527.80		
Agriculture (excluding building opera- tions appearing under that head)	398,997.10		
Other departments	627,663.67		
Miscellaneous	9,478.60		
		\$1,435,050.19	
Scholarships and Prizes	\$28,799.37		
Summer Session	42,099.96		
Lick Observatory	41,800.50		
Dental Department	26,026.41		
Medical Department (including Univer- sity Hospital and Los Angeles Medical Department)	119,890.32		
		258,616.56	\$1,693,666.75
		1,743.06	1,695,409.81
Musical and Dramatic			
Watershed lands: Purchase of lands in Strawberry Cañon		23.04	1,695,432.85
Building operations		398,264.75	2,093,697.60
Permanent Building Fund: Interest on monies		21,946.62	2,115,644.22
Wilmerding Trade School		29,224.92	2,144,869.14
Turning over of funds (as loans, repayment of students' deposits, etc.)		2,259,867.65	
		<u>\$4,404,736.79</u>	

INCOME AVAILABLE FOR GENERAL EDUCATIONAL,
ADMINISTRATIVE, AND SCIENTIFIC
PURPOSES IN 1912-13

Total income available for current use:

Investments	\$240,799.17	
United States	80,000.00	
State of California	1,152,020.41	
		\$1,472,819.58
Students' fees	\$137,415.83	
Dental Department	22,375.99	
Medical Department	17,880.70	
University Hospital	32,120.41	
Los Angeles Medical Department	1,920.93	
University Extension	825.00	
Sale of agricultural produce, etc.	151,830.14	
Miscellaneous	21,214.69	
Receipts from concerts, etc.	884.42	
		386,468.11
		72,699.93
Gifts for current use		\$1,931,987.62

Deduct:

Permanent Building Fund moneys	\$203,668.00
Wilmerding School (expenditures)	29,224.92
Income on Endowment added to principal:	

Alumni Association Life Member- ership Fund	\$214.56
Alumni Hall Fund	519.26
Class of 1881 Loan Fund	36.04
Class of 1886 Loan Fund	182.64
Class of 1895 Loan Fund	18.44
Class of 1898 Loan Fund	5.27
Class of 1903 Loan Fund	8.39
Class of 1905 Fund	4.10
Class of 1908 Fund	12.51
Cole Scholarship Fund	128.22
E. A. Denicke Loan Fund	273.79
Dental Endowment Fund	277.37
Doe Library Fund	7,859.97
Grubstake "W" Loan Fund	20.72
Hammerslag Loan Fund	348.23
Medal Loan Fund	9.07
Men's Dormitory Fund	22.11
Napa Seminary Loan Fund	6.37
Prytanean Hospital Fund	57.63
Royer Endowment Fund	220.23
Sather Classical Chair Fund	5,767.38
Sather Historical Chair Fund	767.46

Carried forward	\$16,759.76	\$232,892.92	\$1,931,987.62
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Brought forward	\$16,759.76	\$232,892.92	\$1,931,987.62
Sather Fund awaiting distribution	14,668.43		
Special Senior Class Loan Fund..	27.76		
Walton Loan Fund	322.68		
Women's Dormitory Fund	117.40		
		31,896.03	
Receipts from concerts		884.42	
State Appropriations:			
Los Angeles Medical Dept. Build-			
ing	20,324.10		
University Farm	103,729.98		
Hog Cholera Serum	5,078.19		
Insecticides and Fungicides	5,019.86		
Farmers' Institutes	15,000.00		
Southern California Buildings and			
lands	15,200.22		
		164,352.35	
Students' Fees, Summer School of Surveying		3,340.00	
Students' Fees, Summer School of Surveying Com-			
missary		5,430.45	
			438,796.17
available for current educational, scientific and administrative pur-			
poses			1,493,191.45
educt also:			
Dental Department Expenditures		\$26,026.41	
Medical Department Expenditures, including Uni-			
versity Hospital and Los Angeles Medical Dept.		119,890.32	
Anthropology Department Expenditures		11,660.15	
Lick Observatory Expenditures	\$34,562.39		
Lick Observatory, receipts from dona-			
tions	5,000.00		
		39,562.39	
Sale of Keeler Volume (receipts)		23.00	
State Appropriations:			
Cereal Investigation (receipts)	\$7,500.00		
Imperial County Investigation (re-			
ceipts)	4,044.08		
Plant Diseases, Northern (re-			
ceipts)	7,500.00		
Viticulture (receipts)	7,500.00		
Southern California Pathological			
Laboratory and Equipment			
(receipts)	20,852.67		
		47,396.75	
Donations for University Hospital	\$5,002.08		
Scripps Institution	14,354.48		
Excavations at Rancho La Brea	1,370.00		
		20,726.56	
Carried forward		\$265,285.58	\$1,493,191.45

<i>Brought forward</i>		\$265,285.58	\$1,493,191.45
Sales Funds:			
University Farm	\$94,108.85		
Cereal Produce	1,015.92		
Hog Cholera Serum, etc.	25,298.79		
Southern California Pathological Laboratory	1,385.60		
Northern California Pathological Laboratory	10.00		
Viticultural Produce	5.00		
Imperial County Produce	84.50		
California Educational Butter Scoring Contest	301.34		
		122,210.00	
			387.495.58
Available at Berkeley for general educational, scientific and adminis- trative purposes			\$1,105,695.87

INCOME

July 1, 1912, to June 30, 1913

Income on Investments:

Interest on mortgage and collateral loans	\$79,385.91	
Interest on loans to students from endowed loan funds	210.19	\$79,596.10

Interest on bonds:

State bonds (from the State)	\$45,060.00	
Diverted funds: from the State (see act ap- proved March 3, 1893, Stats. 1893:75, and also amendment Stats. 1899:93)	4,785.00	
Bear Gulch Water Company (two coupons ac- rued, due January, 1913, and July, 1913)	8,200.00	
Bohemian Club	45.00	
Oakland Traction Consolidated	750.00	
Pacific Telephone and Telegraph Company	250.00	
Sacramento Gas and Electric Company	50.00	
Southern Pacific Railroad, first refunding 4's....	1,320.00	
Tonopah United Water Company	1,200.00	
Interest on deferred payments: Contracts for sale of Real Estate	3,164.31	64,824.31

Dividends on stocks:

Bank of California	\$1,000.00	
Fireman's Fund Insurance Co.	1,600.00	
Kennedy Mining and Milling Co.	4,080.00	
Mackay Companies: Preferred	2,816.00	
University Land Co.	150.00	
Weinstock-Lubin Real Estate Co.: Preferred	325.00	
		9,971.00

Carried forward \$154,391.41

<i>Brought forward</i>		\$154,391.41	
Dividends on Savings Bank Deposits, etc.:			
First Federal Trust Co. of San Francisco	\$374.11		
Central Savings Bank of Oakland	569.84		
			943.95
Interest on Investment monies loaned to the Permanent Building Fund, to carry out the provisions of the "ten year programme"	\$21,946.62		
Interest on Investment monies loaned to the General Funds of the University as a working capital	17,795.73		
			39,742.35
Portion of the State Appropriation for "Reimbursement of Income" applied as loss of rents			11,000.00
Rents:			
Berkeley			
University Cottages, Palmer House and 2642 Sylvan Way (after deduction of structural and other repairs)	\$2,308.22		
Watershed lands:			
Such Ranch	377.83		
Lots on Sixth Street, West Berkeley	61.65		
		2,747.70	
Oakland			
14th and Washington streets, Oakland, net rental (gross receipts, \$27,300.00, less repairs, insurance and commissions, \$1,012.90)		26,287.10	
San Francisco			
First street building, San Francisco, leased to Blake, Moffitt and Towne (gross rents \$11,024.52, less repairs \$92.90)	10,931.62		
Wilmerding School, vacant block and shops	2,940.00		
Potrero avenue lots, San Francisco	120.00		
		13,991.62	
Flood lands, Menlo Park:			
Rent from Henry Nelson	\$1,246.00		
Less payments for water	\$195.95		
Shingling barn	348.20		
Appraising lands	100.00		
		644.15	
		601.85	
<i>Carried forward</i>	\$43,628.27	\$206,077.71	

<i>Brought forward</i>	\$43,628.27	\$206,077.71
Lick Observatory lands (R. F. Morrow)	80.00	
Fresno County lands	24.00	
San Luis Obispo County lands	235.06	
Thompson lot on Dearborn street, Chicago	3,000.00	
		<hr/> 46,967.33
		<hr/> \$253,045.04
Less proportion of income on endowed and other funds payable as follows:		
Students' Co-operative Society	\$570.18	
Madame Thérèse F. Colin	63.25	
Secretary of the Class of 1907 Fund	8.40	
Secretary of the Class of 1908 Fund	12.51	
Secretary of the Class of 1909 Fund	58.67	
Secretary of the Class of 1910 Fund	75.65	
Secretary of the Class of 1911 Fund	70.74	
Secretary of the Class of 1912 Fund	106.47	
Secretary of the Alumnae Y. W. C. A.	30.00	
Secretary of the Y. W. C. A.	250.00	
		<hr/> 1,245.87
United States:		<hr/> \$251,799.17
Morrill College Aid Fund	\$50,000.00	
Agricultural Experiment Station (Hatch Fund)	15,000.00	
Adams Fund	15,000.00	
		<hr/> 80,000.00
State of California:		
Three-fourths of the State University Fund, remaining one-fourth is devoted to Permanent Improvements and appears under that head (Total income from the three-cent tax was \$814,671.93)	\$611,003.93	
General Appropriation: "For the support of the University"	100,000.00	
Special Appropriation for Agriculture:		
Cereal Investigation	\$7,500.00	
Farmers' Institutes	15,000.00	
Hog Cholera Serum	5,078.19	
Imperial County Investigations....	4,044.08	
Insecticides and Fungicide Control	5,019.86	
Plant Diseases Northern, appropriation 1911	7,500.00	
Southern California Pathological Laboratory	19,996.46	
Southern California Pathological Laboratory Equipment	856.21	
Viticulture	7,500.00	
Whittier Barn and Workshop	5.34	
Whittier Heating Plant	46.33	
Whittier, Enlargement of plant.....	28.69	
Riverside Buildings and Lands....	15,119.86	
		<hr/> 87,695.02
		<hr/> \$798,698.95
<i>Carried forward</i>		<hr/> \$331,799.17

<i>Brought forward</i>	\$798,698.95	\$331,799.17
University Farm:		
Buildings	\$21,764.57	
Equipment	5,140.46	
Implements	1,584.88	
Improvement of Grounds	2,643.49	
Light, Power, Water and Sewer	7,760.95	
Livestock	4,722.24	
Salaries	33,429.31	
General Support	26,684.08	
	<hr/>	103,729.98
Los Angeles Medical Department Hospital	20,324.10	
Music	3,000.00	
Reimbursement for loss of income (see also under "Income from Investments")	4,500.00	
Printing	7,099.38	
	<hr/>	937,352.41

NOTE.—The total received (and receivable) from the State of California was \$1,152,020.41, composed of the above figure of \$937,352.41, portion of "Reimbursement for loss of income" shown under "Income from Investments" \$11,000, and Permanent Building Fund, \$203,668.

The total of the appropriations for the University Farm is \$103,729.98, of which \$62,756.88 is for maintenance and support, and \$40,973.10 for buildings, equipment, and improvements.

Students' Deposits and Fees (net):

Deposits (balances retained for laboratory charges):

Agriculture	\$738.75	
Astronomy	255.00	
Bacteriology	1,014.71	
Botany	856.00	
Chemistry	11,505.90	
Civil Engineering	2,751.05	
Mechanics	2,373.25	
Mineralogy	423.25	
Mining	1,015.00	
Physics	4,906.45	
Physiology	230.85	
Zoology	1,237.65	
Zymology	8.35	
	<hr/>	27,316.21

Fees:

Changing Courses	\$943.00
Delayed registration for courses ..	1,398.00
Gymnasium	16,454.75
Infirmary	25,456.00

<i>Carried forward</i>	\$44,251.75	\$27,316.21	\$1,269,151.58
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ANNUAL REPORT OF THE PRESIDENT

<i>Brought forward</i>	\$44,251.75	\$27,316.21	\$1,269,151.58
Non-resident (for students from outside California)	5,640.00		
Special Examinations	2,082.00		
		51,973.75	
Summer Session, Fees and Deposits:			
Anatomy, 1912	\$35.00		
Anatomy, 1913	37.50		
Botany, 1912	80.00		
Botany, 1913	98.50		
Chemistry, 1912	15.00		
Chemistry, 1913	1,095.00		
Physics, 1912	85.00		
Physics, 1913	438.75		
Physiology, 1912	5.00		
Summer Session, 1912	4,932.41		
Summer Session, 1913	34,289.32		
Summer Session, Civil Engineer- ing, 1913	3,340.00		
Summer Session Commissary	5,430.45		
Summer Session, Home Economics, 1912	245.50		
Summer Session, Home Economics, 1913	592.00		
Summer Session, Manual Train- ing, 1912	309.25		
Summer Session, Manual Train- ing, 1913	547.00		
Summer Session, Public Health, 1913	236.20		
Summer Session, Zoology, 1912....	25.50		
Summer Session, Zoology, 1913....	57.50		
		51,894.88	
Student Rebates payable prior to June 30, 1912, but not called for up to June 30, 1913: checks now can- celled.			
Agriculture	\$25.95		
Bacteriology .....	.10		
Chemistry	960.71		
Civil Engineering	354.20		
Dairy	17.00		
Diplomas	4,262.10		
Histology	5.00		
Mechanics	124.85		
Medicine	11.00		
Mineralogy	3.00		
Mining	128.24		
Physics	291.40		
<i>Carried forward</i>	\$6,183.55	\$131,184.84	\$1,269,151.58

INCOME

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<i>Brought forward</i>	\$6,183.55	\$131,184.84	\$1,269,151.58
Physiology	21.25		
Zoology	26.19		
		6,230.99	
			137,415.83
University Extension:			
Fees from centers		500.00	
Fees from courses		325.00	
			825.00
Dental Department: Fees and miscellaneous receipts, exclusive of donations			22,375.99
Medical Department: Fees and miscellaneous receipts			17,880.70
Los Angeles Medical Department: Fees and miscellaneous receipts			1,920.93
University Hospital in San Francisco: Miscellaneous receipts, exclusive of donations			32,120.41
Sale of Agricultural Produce, etc.:			
License fees and tax for inspection of commercial fertilizers	\$12,926.34		
License Fees for Sale of Insecticides.....	982.00		
California Educational Butter Scoring Contest	301.34		
Official Advanced Registry Tests	1,431.45		
Sale of Adams Fund produce	210.00		
Sale of Agricultural produce	200.54		
Sale of Cereal produce	1,015.92		
Sale of Dairy produce	12,648.91		
Sale of Dairy cattle	405.25		
Sale of grain sacks from Dairy Dept.	51.45		
Sale of garden and greenhouse produce at Berkeley	40.20		
Sale of Hog Cholera Serum	23,361.06		
Sale of Dead Hogs, etc.	1,937.73		
Sale of Northern California Pathological Laboratory produce	10.00		
Sale of Southern California Pathological Laboratory produce	1,385.60		
Sale of Imperial Valley produce	84.50		
Sale of Viticultural produce	5.00		
Students' Deposits, Pomology	204.00		
Students' Deposits, Summer Session....	520.00		
		57,721.29	
University Farm:			
Creamery	\$57,726.92		
Dormitory	22,829.56		
Poultry sales	1,942.45		
Stock sales, Livestock	4,116.49		
Stock sales, Milk, etc.	2,156.28		
Stock sales, Wool, etc.	202.50		
Stock sales, Premiums at State Fair	587.06		
<i>Carried forward</i>	\$89,561.26	\$57,721.29	\$1,481,690.44

ANNUAL REPORT OF THE PRESIDENT

<i>Brought forward</i>	\$89,561.26	\$57,721.29	\$1,481,690.44
Students' deposits	3,042.33		
General produce	1,362.39		
Veterinary sales	48.75		
Shop sales	94.12		
		94,108.85	
			151,830.14

Miscellaneous:

Printing and Publishing:

Charges for work done by Print- Office (does not include work done for departments of the University)	\$1,555.70		
Sale of Publications	2,049.42		
Sale of Syllabus	286.46		
Sale of Weinstock Lectures	21.49		
Sale of History 1A Syllabus	203.40		
Sale of Political Science Syllabus	95.75		
Sale of Economics Syllabus .....	.50		
Sale of Keeler Volume	23.00		
Sale of Miss Shinn's Pamphlet...	2.50		
Sale of "Zoe"	21.16		
Sale of Tebtunis Papyri	56.88		
Sale of Academy of Pacific Coast History Publications	186.20		
Sale of Archaeological Publications (see contra, for refund of \$21.92)	15.90		
		4,518.36	
Infirmary Receipts for operations, etc.		2,554.26	
Interest on notes given by students for operations at Infirmary		63.12	
Certified copies of patents		30.00	
Duplicate Diplomas		10.00	
Supervising Examinations for Actuarial Society of America		10.00	
Civil Service Examinations		3.00	
Cash for exchange on checks, etc. ....		.82	
Sale of wood, lumber, junk, etc.		204.45	

Reimbursement for work done, etc., by
departments: this includes sale
of materials, and work done
for other departments of the
University:

Departmental:

Chemistry	\$487.94
Civil Engineering	2,366.51
Mechanics	394.53
Military Science	2.41
Pathology	106.86

<i>Carried forward</i>	\$3,358.25	\$7,394.01	\$1,633,520.58
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INCOME

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<i>Brought forward</i>	\$3,358.25	\$7,394.01	\$1,633,520.58
Physics	58.35		
Physiology	14.50		
Publications	194.35		
	<hr/>	3,625.45	
Administrative:			
Electric Light and Power	\$493.10		
Janitors	837.64		
Library:			
Sale of books, refund for freight, etc.	233.17		
Library fines	584.00		
Postage, Stationery and Steno- graphic Assistance	339.44		
Repairs	3,069.36		
Site	2,593.50		
Telephone, Telegraph and Ex- press	726.99		
Water	244.75		
Refund of amount advanced last year for purchase of books in Europe	208.49		
	<hr/>	9,330.44	

NOTE.—Printing Office receipts are shown under "Printing and Publishing": "Repairs" and "Site" do not include constructional work done for alterations in or erection of buildings.

Wilmerding School: Receipts for material and man- ufactures	864.79		
	<hr/>	21,214.69	
Receipts from Musical and Dramatic events		884.42	
Gifts for current use:			

Mrs. Hearst:

Phoebe A. Hearst Scholarships.....	\$2,400.00		
Anthropology, for salaries	1,680.00		
Architecture, for salaries	1,000.00		
Physical Culture, Equipment	358.06		
Hearst Memorial Mining Building Equipment	1,000.00		
	<hr/>	6,438.06	

See also "for the Lick Observa-
tory" and under "Donations
for Erection of Buildings, etc."

Scholarships:

(Mrs. Hearst as above).

(The State of California Scholar-
ships are supported by \$3,500
from the State University Fund).

<i>Carried forward</i>	\$6,438.06	\$1,655,619.69
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<i>Brought forward</i>		\$6,438.06	\$1,655,619.69
(The University Fellowships are supported by \$4,000 from the State University Fund).			
Catherine Allen Scholarship	250.00		
Australian Scholarship	728.50		
Levi Strauss Scholarship (the gift of Levi Strauss and Co.)	1,750.00		
Undergraduate Scholarship	125.00		
		2,853.50	
Prizes:			
Bonnheim Prize	235.00		
Irving Prize for best sketch	25.00		
Bryce Historical Essay Prize	100.00		
Newman Hall Essay Prize	100.00		
W. C. T. U. Essay Prize	50.00		
		510.00	
Astronomy:			
Academy of Arts and Sciences		600.00	
Library donations for current use:			
History 1A, Class in	\$874.50		
J. K. Moffitt, for History	1,200.00		
For Irish books, Gaelic League....	150.00		
For Irish books, Knights of St. Patrick	100.00		
		2,324.50	
For a bronze bust of Prof. Hilgard: various small donations		250.20	
For the Lick Observatory:			
Estate of D. O. Mills: Southern Hemisphere Expedition		5,000.00	
Academy of Pacific Coast History:			
For equipment, per Sir Richard M'Bride		500.00	
Agriculture:			
For investigation of Nitrogen Fertilizers, per W. S. Myers		300.00	
University Hospital in San Francisco:			
For salaries, per H. C. Moffitt	\$2,200.00		
For apparatus, per H. C. Moffitt....	1,278.58		
For general support, per various patients	123.50		
For X-Ray apparatus	1,000.00		
For diet kitchen, per Mrs. Drexler	400.00		
		5,002.08	
Palaeontological Research: A friend....			
For excavations at Rancho La Brea			
W. H. Crocker	550.00		
C. S. Wheeler	100.00		
W. F. Dohrman	50.00		
J. K. Moffitt	100.00		
<i>Carried forward</i>	\$800.00	\$2,400.00	\$23,778.24
			\$1,655,619.69

INCOME

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<i>Brought forward ..</i>	\$800.00	\$2,400.00	\$23,778.34	\$1,655,619.69
J. A. Britton	50.00			
P. E. Bowles	300.00			
W. S. Martin	20.00			
A. W. Foster	100.00			
G. W. McEnerney	100.00			
		1,370.00		
For skeleton of sabre-tooth tiger, per Estate of Ida Hancock Ross		\$125.00		
			3,895.00	
Zoology:				
For salaries (assistance in work- ing up results of the Agassiz Expedition to the South Seas), Prof. Alexander Agassiz		\$600.00		
For comparative anatomy: Class of 1911		10.50		
Miss Annie M. Alexander: for the California Museum of Verte- brate Zoology		9,796.78		
			10,407.28	
Dental Department:				
For salaries: per Dental Faculty	\$400.00			
For furniture: per students	126.40			
			526.40	
Mechanics:				
For Course in Gas Engineering: per Pacific Coast Gas Association			2,700.00	
Physical Culture:				
A Friend: to provide for an assistant			605.00	
Scripps Institute for Biological Re- search at La Jolla:				
Running expenses	\$13,304.48			
Library	1,050.00			
			14,354.48	
Lectures: per Raphael Weill			150.00	
Carnegie Foundation for the Advance- ment of Teaching:				
Retiring Allowance for:				
G. H. Howison, Philosophy	\$2,875.00			
F. Soule, Civil Engineering	1,440.36			
Mrs. A. S. Soule (widow of F. Soule), Civil Engineering	303.07			
I. Flagg, Greek	1,600.00			
A. Putzker, German	1,500.00			
R. H. Loughridge, Agriculture	1,420.00			
Sarah F. L. Rising (widow of W. B. Rising), Chemistry	1,035.00			
<i>Carried forward</i>	\$10,173.43		\$56,416.50	\$1,655,619.69

ANNUAL REPORT OF THE PRESIDENT

Brought forward	\$10,173.43	\$56,416.50	\$1,653,619.69
Martha S. D. Stringham (widow of Irving Stringham), Mathe- matics	960.00		
C. B. Bradley, English	1,750.00		
Bernard Moses, Political Science..	2,400.00		
		15,283.43	
Academy of Pacific Coast History		1,000.00	
			72,699.93
(These gifts to the Academy were handled by the University as custodian of the funds in behalf of the Academy.)			
Donations for Erection of Buildings, etc.:			
Boalt Hall of Law		\$5,180.00	
Marble Chairs in Greek Theatre		235.00	
Mrs. Hearst: for grading around the Hearst Mem- orial Mining Building		500.00	
E. W. Scripps: for building at the Scripps Institu- tion of Biological Research at La Jolla		13,000.00	
University Hospital:			
Gordon Blanding	\$25,000.00		
Mrs. Drexler	10,000.00		
		35,000.00	
			53,915.00
Donation of Real Estate and Improvements:			
Associated Students of the University of California:			
Buildings and Improvements on Sylvan way and College avenue			10,075.00
Income for Permanent Improvements:			
Permanent Improvement Fund (one-fourth of the State University Fund)			203,668.00
Gifts for Endowment:			
Alumnus Book Fund: donated by "A Friend": in- come for the purchase of books		\$3,800.00	
Class of 1881 Loan Fund		50.00	
Class of 1887 Loan Fund		90.00	
Class of 1897 Library Fund		1,005.00	
Class of 1900 Library Fund		10.00	
Class of 1911 Loan Fund		7.90	
George Williams Hooper Endowment Fund for Medical Research (valuation of Real Estate)	1,000,000.00		
Carrie M. Jones Scholarship Fund	100,000.00		
Kearney Bequest (sale of old clothes)	9.00		
Loan Fund No. 2	200.00		
Napa Seminary Loan Fund (additional gift)	100.00		
Horatio Stebbins Scholarship Fund	4,000.00		
			1,109,271.90
Turning over of Funds:			
Students' deposits: later returned or due to be returned	\$11,618.09		
Military Fees for Summer Session Camp	171.00		
Carried forward	\$11,789.09		\$3,105,249.52

INCOME

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<i>Brought forward</i>	\$11,789.09		\$3,105,249.52
Military uniforms	12,071.40		
Gymnasium suits	2,118.50		
Certified checks accompanying bids on contracts	58,866.95		
Deposits on plans	320.25		
Excess of receipts over expenditures in purchase and issue of materials for the storehouse	820.30		
		85,986.49	
Income on Endowed Funds held in trust:			
Students' Co-operative Society	\$570.18		
Madame Thérèse F. Colin	63.25		
Alumnae Y. W. C. A. Fund—payable to Secretary	30.00		
Y. W. C. A. Fund, payable to Secretary	250.00		
Class of 1907 Fund, payable to Secretary	8.40		
Class of 1908 Fund, payable to Secretary	12.51		
Class of 1909 Fund, payable to Secretary	58.67		
Class of 1910 Fund, payable to Secretary	75.65		
Class of 1911 Fund, payable to Secretary	70.74		
Class of 1912 Fund, payable to Secretary	106.47		
		1,245.87	
Rents, etc., received from properties donated by the Associated Students		1,422.43	
Change of form of investments:			
Mortgage loans repaid and renewed	236,500.00		
Student notes from Loan Funds....	3,839.32		
Kearney Vineyard Advances Account	10,000.00		
Savings Banks' deposits withdrawn:			
Central Savings Bank of Oakland	29,062.88		
First Federal Trust Co. of San Francisco	21,753.61		
Sather Banking Co. stock: dividend in liquidation	900.00		
		302,055.81	
Contingent Funds: amounts refunded:			
W. D. Arnes	\$1,500.00		
W. W. Campbell	2,000.00		
J. E. Coit	100.00		
A. A. D'Ancona	1,000.00		
<i>Carried forward</i>	\$4,600.00	\$390,710.60	\$3,105,249.52

<i>Brought forward</i>	\$4,600.00	\$390,710.60	\$3,105,249.52
A. L. Kroeber	129.63		
H. C. Moffitt	1,000.00		
W. E. Packard	300.00		
R. M. Roberts	1,000.00		
J. I. Thompson	1,000.00		
E. J. Wickson	2,000.00		
		10,029.63	
Valuation of Inventory of Equipment		617,111.11	
Reduction of assets: buildings torn down:			
University cottages: Cottage No. 2	\$1,200.00		
Plant House demolished	257.00		
		1,457.00	
			1,019,308.34
			<u>\$4,124,557.86</u>

EXPENDITURES

July 1, 1912, to June 30, 1913

Administration:

Administrative salaries:

Salaries	\$46,594.68	
Advisors	3,566.00	
Janitors, Watchmen, etc.	36,100.00	
President's Contingent Expense allotment	3,000.00	
		\$89,260.68
Affiliated Colleges: Repairs and maintenance of grounds		2,525.38
Auditing		1,015.65
Equipment		2,246.36
Examination of Schools		1,934.03
Fuel (aside from oil)		1,415.58
Lectures (of which \$150 was provided by Raphael Weill)		200.00
Light, Power and Heating System		44,658.44
Postage		3,387.66
Printing Office (this represents the cost of admin- istrative printing: the cost of printing for in- dividual departments is not included in this figure, such items have been charged to the various departments)		9,068.30
Publications (the scientific series are included, but not the administrative printing)		11,973.14
Repairs		18,874.62
Site Improvement and Maintenance		20,317.10
Stationery		1,766.47
Telephone, Telegraph & Expressage		6,231.81
Water		11,219.10
		<u>\$226,094.32</u>

Carried forward\$226,094.32

EXPENDITURES

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<i>Brought forward</i>		\$226,094.32	
Administrative Expense:			
Assistance and stenographers in all Administrative Departments		\$35,435.42	
Traveling Expenses—Administrative		1,777.31	
Traveling and Removal Expenses:			
Gilbert Chinard, removal expenses	\$200.00		
Gilbert N. Lewis, removal expenses	400.00		
H. J. Webber, removal expenses	305.42		
A. V. Steubenrauch, removal expenses	500.00		
Joel Hildebrand, removal expenses	250.00		
H. E. Van Norman, Trip from Chicago to Berkeley and return	150.90		
		1,806.32	
Traveling Expenses of University delegates to conventions, etc.:			
A. F. Lange, Association of American Universities	\$48.00		
Miss M. L. Kissell, visiting various eastern institutions	350.00		
W. W. Campbell, Semi-centennial of founding of National Academy of Arts and Sciences	299.00		
Dr. George F. Reinhardt, Reed College Conference	69.25		
Bernard D. Moses, International Congress of Historical Studies	80.45		
I. W. Howerth, trip to University of Wisconsin regarding Univ. Extension Methods	150.00		
Mrs. D. L. Bunnell, visiting eastern Agricultural Libraries	100.00		
W. W. Campbell, Astronomische Gesellschaft	250.00		
		1,346.70	
Sanitary Engineer, salary and expenses		1,686.39	
Rentals:			
Office in Crocker Building, San Francisco	\$720.00		
Rooms in Stiles Hall	364.77		
<i>Carried forward</i>	\$1,084.77	\$42,052.14	\$226,094.32

ANNUAL REPORT OF THE PRESIDENT

Brought forward	\$1,084.77	\$42,052.14	\$226,094.32
Rooms in Faculty Club	154.00		
Piano for Music Department and University Meetings ..	132.00		
Safe Deposit Box, Union Safe Deposit Co.	60.00		
Safe, Mercantile Trust Co.	100.00		
		1,530.77	
Legal Expenses, including salary of attorney's stenographer		1,410.80	
Insurance and Premiums on Surety Bonds.....		1,253.69	
Expenses in connection with accident to E. W. Hilgard		1,032.65	
Charter Day:			
Honorarium	\$500.00		
Expenses, including reception..	518.00		
		1,018.00	
Gas		429.60	
Half-hours of Music		623.70	
President's Receptions:			
Freshman	\$310.00		
Graduate	82.60		
		392.60	
Dedication of Agriculture Hall		380.06	
Hack and auto hire		225.15	
Press clippings		147.69	
Medical attention to J. E. Lozier		100.00	
Injuries claim, O. L. Sparks		91.00	
Six silk hoods, LL.D.		87.32	
Exchange and money order fees		67.98	
Expenses of Lick Observatory astronomers in connection with Astronomy Department Lec- tures		64.70	
Placing and removing gates and barriers		55.85	
Dues:			
National Association of State Universities	\$15.00		
Association of American Uni- versities	40.00		
		55.00	
Moving files from attic to basement of Califor- nia Hall		48.55	
Engrossing greetings to Mrs. Hearst		45.00	
Appraisements of property:			
Lazier, Congressional Land		15.00	
Fitting up office on First street, San Francisco		21.72	
Photos, blue prints, etc.		20.89	
Flowers for R. Frisselle, deceased		20.00	
Abstracting publications and reporting lectures		20.00	
Advertising for assistance, etc.		19.90	
Commencement Day expenses		18.50	
Carried forward		\$51,248.26	\$226,094.32

EXPENDITURES

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Brought forward	\$51,248.26	\$226,094.32
Directory service in California Hall	15.00	
Analyses:		
Sweeping compound	\$10.00	
Caustic soda	1.00	
	11.00	
Election returns, Harmon Gymnasium	10.44	
Fire report service	10.00	
Orchestration of music for University Meeting in honor of Mrs. Hearst	10.00	
Miscellaneous	138.02	
		51,442.72
Interest on money borrowed from monies on hand awaiting Investment (this virtually is the "working capital" of the University):		
First half year at 5.84816 + per cent	\$8,268.10	
Second half year at 5.83757 + per cent	9,527.63	
	\$17,795.73	
Less interest at 2 per cent per annum allowed by Treasurer on daily balances on hand	4,385.80	
		13,409.93
Students' Infirmary:		
Equipment and running expenses	\$25,400.68	
Donation for furnishings	35.37	
		25,436.05
Library:		
Departmental allotment:		
Salaries	\$16,974.92	
Expense	3,240.15	
Assistance	18,294.69	
Equipment	175.96	
Binding	5,094.40	
Books and periodicals	21,828.47	
Completing sets	345.00	
Freight, insurance, etc.	1,129.80	
	67,083.39	
Class of 1900 Library Fund, in- terest	\$46.80	
Class of 1907 Library Fund, in- terest	10.80	
Ethel W. Crocker donation	54.24	
E. A. Denicke Library Fund, in- terest	7.49	
History 1A donation	1,025.60	
Jucksch Fund, interest	103.10	
Irish books, donation for	33.99	
Mary Lake Memorial, donation.....	194.80	
Eugene Meyer, Jr., Library Fund, interest	154.58	
Carried forward	\$1,631.40	\$67,083.39
		\$316,383.02

Brought forward	\$1,631.40	\$67,083.39	\$316,383.02
J. K. Moffitt donation	20.96		
Michael Reese Library Fund, interest	2,750.00		
Richardson donation	37.80		
Jane K. Sather Library Fund, interest	1,088.94		
Jane K. Sather Historical Library Fund, interest	631.48		
Jane K. Sather Law Library Fund, interest	2,038.31		
Claus Spreckels donation	79.78		
"Zoe," Sale of	15.80		
		8,294.47	
NOTE.—Total expended for books and periodicals is \$30,467.94.		75,377.86	
Bancroft Library:			
Departmental allotment		6,849.94	
Academy of Pacific Coast History: transcription of documents		300.00	
			82,527.80
Agriculture:			
Departmental allotment:			
Agriculture	\$42,197.38		
Bacteriology	591.40		
Education	2,478.10		
Entomology	959.60		
Equipping Plant Diseases Laboratory in Berkeley	480.50		
Forestry	1,499.60		
Publication of prospectus	1,207.88		
		49,414.46	
Carnegie Foundation: retiring allowance		1,420.00	
United States:			
Adams Fund	\$15,000.00		
Agricultural Experiment Station..	15,000.00		
Morrill College Aid Fund	20,653.90		
		50,653.90	
Sales Funds:			
University Farm:			
Creamery	\$54,513.55		
Dormitory	21,588.22		
General Fund (this represents expenditures in excess of State Appropriation for Support: it is shown under the head of "Sales Funds" because the money was provided from the excess of income on hand from the Creamery)	2,039.95		
Carried forward	\$78,141.72	\$101,488.36	\$398,910.82

EXPENDITURES

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<i>Brought forward</i>	\$78,141.72	\$101,488.86	\$398,910.82
Poultry sales	2,555.79		
Sales of produce	1,304.13		
Snop sales	27.00		
Stock sales	8,381.97		
Students' deposits	3,666.14		
Veterinary sales	50.49		
	<hr/>		
	\$94,127.24		
Agricultural Experiment Station sales	\$57.98		
California Educational Butter Scoring Contest	375.76		
Cereal sales fund	503.64		
Dairying	12,756.97		
Donation for Investigation of Nitrogen Fertilizers	110.97		
Donation for Lima Bean Investigations	100.39		
Fertilizer Control	12,428.39		
Garden and greenhouse sales	25.58		
Hog Cholera Serum sales	19,438.21		
Imperial County sales	116.85		
Insecticide Registrations	1,284.76		
Official Advanced Registry Tests..	1,207.35		
Southern California Pathological Laboratory sales	1,482.23		
Student Deposits: Agriculture Summer Session	534.61		
Student Deposits: Pomology Fees	205.30		
	<hr/>		
		144,756.23	
State Appropriations for Agriculture:			
University Farm:			
Equipment	\$5,140.46		
Implements	1,584.88		
Improvement of grounds	2,643.49		
Livestock	4,722.24		
Salaries	33,429.31		
General support	26,684.08		
	<hr/>		
	\$74,204.46		
Cereal Investigation	6,928.40		
Farmers' Institutes	16,560.73		
Hog Cholera Serum	5,078.19		
Imperial County Investigations...	4,044.08		
Insecticides and Fungicides	5,019.86		
Plant Diseases, Northern	7,836.92		
Southern California Pathological Laboratory	19,996.46		
	<hr/>		
<i>Carried forward</i>	\$139,669.10	\$246,244.59	\$398,910.82

Brought forward	\$139,669.10	\$246,244.59	\$398,910.82
Southern California Pathological Laboratory Equipment	856.21		
Viticulture	7,377.17		
Printing publications and circulars	4,850.03		
		152,752.51	398,997.10
NOTE.—The following amounts, expended from appropriations made by the State on the construction of buildings, are not included in the above figures, they appear under the head of "Building Operations":			
University Farm Buildings	\$21,764.57		
University Farm, light, power, water and sewer	7,760.95		
Barn and workshops at Whittier..	5.34		
Heating plant at Whittier	46.33		
Enlargement of plant at Whittier..	28.69		
Buildings and lands at Riverside..	15,119.86		
	\$44,725.74		
Anatomy			10,246.60
Anthropology:			
Departmental allotment	\$9,980.15		
Mrs. Hearst's donation for salaries	1,680.00		11,660.15
Architecture:			
Departmental allotment	\$13,779.06		
Mrs. Hearst's donation for salaries	999.96		14,779.02
Astronomy:			
Berkeley Department (departmental allotment).....	\$11,792.29		
Donation by National Academy of Arts and Sciences	600.00		12,392.29
Botany			15,396.28
Celtic			600.00
Chemistry:			
Departmental allotment	\$49,922.21		
Departmental allotment for equipment	3,922.28		
Morrill College Aid Fund	7,399.80		
Carnegie Foundation: Retiring allowance	1,035.00		62,279.29
Civil Engineering:			
Departmental allotment	\$26,940.19		
Morrill College Aid Fund	3,999.96		
Carnegie Foundation: Retiring allowance	1,743.43		32,683.58
Domestic Science			558.97
Drawing			9,449.76
Economics:			
Departmental allotment	\$6,274.18		
Cora Jane Flood Endowment Fund, interest, salaries	18,841.07		25,115.25
Carried forward			\$993,069.11

EXPENDITURES

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<i>Brought forward</i>		\$993,069.11
Education		16,490.01
English:		
Departmental allotment	\$27,374.97	
Carnegie Foundation: Retiring allowance	1,750.00	
		29,124.97
Geography		3,549.84
Geology and Mineralogy		13,108.98
German:		
Departmental allotment	\$15,874.96	
Carnegie Foundation: Retiring allowance	1,500.00	
		17,374.96
Greek:		
Departmental allotment	\$8,426.56	
Carnegie Foundation: Retiring allowance	1,600.00	
		10,026.56
History:		
Departmental allotment	\$17,890.83	
Jane K. Sather Historical Chair Fund	4,999.92	
		22,890.75
Hygiene		6,115.81
Irrigation		5,025.00
Jurisprudence		21,471.35
Latin		16,516.89
Mathematics:		
Departmental allotment	\$24,883.57	
Carnegie Foundation: Retiring allowance	960.00	
		25,843.57
Mechanics:		
Departmental allotment	\$23,914.77	
John W. Mackay, Jr., Endowment Fund, interest:		
Salaries	3,000.00	
Morrill College Aid Fund	5,700.00	
Donation for Course in Gas Engineering	42.85	
		32,657.62
Military Science and Tactics		3,128.14
Mining:		
Departmental allotment	\$17,329.36	
Morrill College Aid Fund	4,399.92	
Donation by Mrs. Hearst, for equipment of Hearst		
Memorial Mining Building	1,523.65	
		23,252.93
Music:		
Departmental expense	\$1,193.01	
State appropriation	3,000.00	
		4,193.01
Oriental Languages:		
Departmental allotment	\$1,923.41	
Tompkins Endowment Fund, interest, salaries	4,002.66	
		5,926.07
<i>Carried forward</i>		\$1,249,765.57

<i>Brought forward</i>		\$1,249,765.57
Palaeontology:		
Departmental allotment	\$6,349.88	
Donations by "A Friend"	2,736.00	
Donations for Excavations at Rancho La Brea	1,370.00	
Paid from general funds of the University to complete the work commenced at Rancho La Brea ..	830.00	
		11,285.88
Pathology		13,803.74
Philosophy:		
Departmental allotment	\$8,591.52	
D. O. Mills Endowment Fund, interest, salaries	6,999.96	
Carnegie Foundation: Retiring allowance	2,875.00	
		18,466.48
Physical Culture:		
Departmental allotment	\$8,430.44	
Mrs. Hearst's donation for apparatus	358.06	
Donation for salary, etc., of assistant	604.98	
		9,393.48
Physics:		
Departmental allotment	\$27,460.26	
Morrill College Aid Fund	7,846.42	
		35,306.68
Physiology		11,634.42
Political Science:		
Departmental allotment	\$7,951.59	
Carnegie Foundation: Retiring allowance	2,400.00	
		10,351.59
Romanic Languages		21,302.17
Sanskrit		1,899.96
Semitic Languages		1,999.92
Slavic Languages		2,226.80
University Extension		801.15
Vertebrate Zoology, Museum of (donation by Miss M. Alexander for support)		9,796.78
Zoology:		
Departmental allotment	\$16,699.96	
Agassiz donation	250.00	
Margaret B. Fowler donation	50.05	
		17,000.01
Scripps Institution for Biological Research (maintained by donations from E. W. Scripps and Ellen B. Scripps):		
General running expenses	\$9,395.26	
Library	1,141.70	
		10,536.96
Miscellaneous:		
Expenditures made from Gymnasium Fee Receipts:		
Swimming Pool:		
Constructing and erecting tank, installing motor, etc., for showers	\$416.51	
<i>Carried forward</i>	\$416.51	\$1,425,571.59

EXPENDITURES

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<i>Brought forward</i>	\$416.51	\$1,425,571.59
Small repairs; care and maintenance (including spring boards, etc.)	261.52	
	<hr/>	\$678.03
Tennis and Basket Ball Courts:		
Repairing and painting fences; care of courts, tennis reels, etc.		485.31
Towels:		
Bath and hand towels	\$712.87	
Paper towels	450.38	
	<hr/>	1,163.25
Laundry:		
Towels, gymnasium suits and handling		4,757.70
Soap for granulators and liquid soap for distributors		426.65
Drinking fountains, faucets and fixtures		324.17
Miscellaneous		82.36
	<hr/>	\$7,917.47
Taxes and insurance on properties purchased on Barrow street, \$505.49 less rent collected, \$400.15		\$105.34
Taxes on property in Salt Lake City (Thompson bequest)		50.95
Agriculture Hall, removal to		349.29
Bust of Professor Hilgard, paid from donations.....		558.67
Miscellaneous litigation expenses		269.32
University medal		160.00
Short in cash during registration, etc.		19.49
Refund on sale of Archaeological publications		21.92
State Treasurer: refund for publications		19.00
George Williams Hooper Endowment Fund: expenses		5.05
Carrie M. Jones Scholarship Fund: Expenses		2.10
	<hr/>	9,478.60
Scholarships and Prizes:		
State of California Scholarships	\$3,500.00	
Catherine Allen Scholarships	125.00	
Australian Scholarships	728.50	
Bennett, Philo Sherman, Prize	30.00	
Bonnheim Prize	235.00	
Bryce Historical Essay Prize	100.00	
Emily Chamberlain Cook Prize	50.00	
W. R. Davis Scholarship	335.00	
James M. Goewey Scholarship	250.00	
Phoebe A. Hearst Scholarships	2,400.00	
Cornelius B. Houghton Scholarship	150.00	
S. C. Irving Prize for poem	25.00	
S. C. Irving Prize for drawing	25.00	
Albert Sydney Johnston Scholarship	175.00	
Martin B. Kellogg Memorial Fellowship	1,100.00	
	<hr/>	
<i>Carried forward</i>	\$9,228.50	\$1,435,050.19

<i>Brought forward</i>	\$9,228.50	\$1,435,050.19
LeConte Memorial Fellowships	500.00	
John W. Mackay, Jr., Fellowships.....	1,200.00	
Frank M. Pixley Scholarship	200.00	
Newman Hall Essay Prize	100.00	
San Jose High School Scholarship	125.00	
Sheffield Sanborn Scholarships	750.00	
F. M. Smith Fellowship	1,445.95	
Levi Strauss Scholarships	3,500.00	
W. D. Thompson Scholarships	3,000.00	
University Fellowships	4,000.00	
University Fellowships in Academy of Pacific Coast History, from Native Sons of the Golden West	3,300.00	
Women's Christian Temperance Union Essay Prize	50.00	
Whiting Fund Fellowship	1,399.92	
		28,799.37
Summer Session:		
Session of 1912	\$28,944.68	
Session of 1913	7,605.95	
Summer School of Civil Engineering	1,558.44	
Summer School of Civil Engineering Commissary....	3,990.89	
		42,099.96
NOTE.—A statement of the total receipts and expenditures of the Summer Session of 1912 will be found on page 266.		
Lick Observatory:		
Departmental allotment	\$32,313.04	
State appropriation Printing	2,249.35	
From gifts:		
E. E. Barnard, for photographs..	\$16.00	
D. O. Mills Southern Hemisphere Expedition	7,222.11	
		7,238.11
Dental Department:		41,800.50
Running expenses	\$25,496.71	
Donation for Library Books	17.70	
Donation for Furnishings	112.00	
Donation for Salaries by Dental Faculty	400.00	
		26,026.41
Medical Department:		
Running expenses	\$24,856.96	
University Hospital in San Francisco:		
Equipment, maintenance, etc.	\$79,687.22	
Donation for apparatus	369.76	
Donation by Herbert C. Moffitt....	2,200.00	
Donation for general maintenance	123.50	
Donation for diet kitchen, Mrs. Drexler	282.03	
		82,662.51
Los Angeles Medical Department:		
Running expenses	12,370.85	
		119,890.32
<i>Carried forward</i>		\$1,693,666.75

EXPENDITURES

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Brought forward \$1,693,666.75

Musical and Dramatic performances 1,743.06

Watershed Lands (purchase of lands, etc., in Strawberry Cañon, to be paid for, ultimately, out of Permanent Building Fund moneys. The total cost of these lands up to date is \$167,655.88, and is being charged to Permanent Building Fund at the rate of \$20,000 per annum; four installments have been so charged) 23.04

Building Operations:

Expenditures during the year on work in progress, paid from General Funds:

Affiliated Colleges: re-wiring buildings 7.64

Anatomy Building alterations 3,410.83

Cereal and Soil Laboratory alterations 4,436.00

Civil Engineering Testing Laboratory 1,238.37

East Hall alterations 1,081.60

Total expenditure during year was \$2,668.16, of this \$1,586.56 is charged against Permanent Building Fund.

Infirmary Annex (paid for out of fees received from students).... 7,645.82

Lick Observatory Dormitory and Cottages (to be made good from appropriation made by State) 45,964.38

Lick Observatory Earthquake Replacement 1,855.16

Mining Building re-wiring 29.70

Nursery and propagation of plants and trees; total expenditure during year was \$1,840.40, of which \$293.50 is charged to Permanent Building Fund.. 1,546.90

Planting Plan for Campus 1,000.00

Printing Office Heating 1,126.18

South Hall alterations 6,420.92

Swimming Pool Pumping Outfit (cost ultimately to be defrayed by Gymnasium fees) 1,552.43

Swimming Tank (cost ultimately to be defrayed by Gymnasium fees) 1.00

77,316.93

Expenditures during the year on work in progress, paid from donations:

Boalt Hall of Law \$256.55

Carried forward \$256.55 \$77,316.93 \$1,695,432.85

<i>Brought forward</i>	\$256.55	\$77,316.93	\$1,695,432.85
Campanile (from the Sather Bequest)	7,232.79		
University Library Building (from the Doe Bequest)	1,103.60		
Marble Chair in Greek Theatre, erected from funds in the hands of the University	498.82		
Mining Building, grading and construction of circle in front of: (donated by Mrs. Hearst)	5,116.67		
Sather Gateway (from donation by Mrs. Sather)	3,616.35		
Scripps Institution for Biological Research at La Jolla (erection of 12 cottages)	13,025.20		
		30,849.98	
Expenditures on buildings, etc., from appropriations made by the State of California:			
University Farm:			
Buildings	\$21,764.57		
Light, power, water and sewer	7,760.95		
Whittier:			
Barn and workshop	5.34		
Heating Plant	46.33		
Enlargement of Plant	28.69		
Riverside:			
Buildings and Lands	15,119.86		
Los Angeles:			
Hospital Unit for the Medical Department	20,324.10		
		65,049.84	
Building Operations (expenditures from Permanent Building Fund during year):			
Affiliated Colleges, Hospital heating extension	\$512.57		
Affiliated Colleges, Medical Department alterations	11,612.10		
Affiliated Colleges, steam-pipe, Veterinary and Medical Buildings	630.60		
Affiliated Colleges, Veterinary and Hospital Buildings, electrical work	2,558.85		
Affiliated Colleges, Pathology Building and heating	1,197.01		
Affiliated Colleges, new boiler and connections	5,493.77		
Affiliated Colleges, repairs to Hospital	313.65		
Agricultural Hall Building: Expenditures during year (1)....	23,597.72		
<i>Carried forward</i>	\$45,916.27	\$173,216.75	\$1,695,432.85

EXPENDITURES

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<i>Brought forward</i>	\$45,916.27	\$173,216.75	\$1,695,432.85
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Agricultural Hall, furnishings	50,896.52
Arc Line additions	34.58
Architectural Building addition	11,129.45
Bacon Library, alterations	367.75
Barrow st. Property—for campus	63,500.00
Boalt Hall, furnishings	56.25
California Hall, equipment	2,125.44
Chemistry Auditorium	20,810.43
Chemistry Auditorium, furnishings	507.83
Chemistry storehouse	10,107.56
East Hall, alterations	1,586.56
Grading for drill ground	34.04
Harmon Gymnasium, alterations ..	408.60
New roads, California Hall to	
Agriculture Hall	4,536.16
Nursery and propagation of plants	293.50
President's House, furnishings	310.50
Rewiring buildings	83.00
South Hall addition	5,463.80
South Hall Feed Wire	415.79
Students' Observatory addition	630.76
Tree planting and trail making,	
east of Greek Theatre	3,468.35
University Library, furnishings:	
Expenditures during year (2)	2,364.86

225,048.00

398,264.75

(1) The total expenditure on this building to date is \$211,913.95; the appropriation from the Permanent Building Fund is \$200,000.00, to be charged in annual instalments of \$20,000.00.

(2) The total expenditure on these furnishings to date is \$185,509.76; the appropriation from the Permanent Building Fund is \$200,000.00, to be charged in annual instalments of \$20,000.00.

Permanent Building Fund:

Amount paid for interest on money borrowed from monies on hand awaiting investment, to carry out the provision of the "ten-year programme":

First half year at 5.84816 + per cent	\$11,138.45
Second half year at 5.83757 + per cent	10,808.17

21,946.62

Wilmerding School:

Running expenses	\$24,421.84
New building (under construction by students)	4,235.58
Street improvement	567.50

29,224.92

Turning over of funds:

Income on Class of 1908 Fund, paid to Secretary	\$55.96
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Carried forward \$55.96

\$2,144,869.14

<i>Brought forward</i>	\$55.96		\$2,144,869.14
Income on Class of 1909 Fund, paid to Secretary	45.00		
Income on Class of 1910 Fund, paid to Secretary	79.12		
Income on Class of 1911 Fund, paid to Secretary	79.94		
Income on Alumnae Y. W. C. A. Fund, paid to Secretary	15.00		
Income on Y. W. C. A. Fund, paid to Secretary	125.00		
Madame Thérèse F. Colin:			
Payments to Madame Thérèse F. Colin	59.86		
		459.88	
Certified checks accompanying bids on contracts returned to contractors..	37,267.07		
Deposits on plans, returned to bidders	265.00		
Students' deposits returned	17,788.88		
		55,320.95	
Expenditures on properties donated by Associated Students		98.85	
Military Fees for Summer Session Camp		152.00	
Military uniforms		11,978.40	
Gymnasium suits		1,961.34	
Reduction in purchase price of Broadway terrace property		325.00	
Amount of "Special Senior Class Loan Fund" refunded to donor		1,000.00	
Bills Receivable:			
Mortgage loans (consummated and renewed)	\$510,000.00		
Kearney Vineyard: Advances account	12,500.00		
Student notes from Loan Funds....	5,636.75		
		528,136.75	
Contingent Fund: Amounts advanced:			
W. W. Campbell	\$1,000.00		
W. C. Crandall	1,500.00		
G. A. Haines	1,000.00		
J. A. Kluge	1,000.00		
J. I. Thompson	1,000.00		
H. E. Van Norman	1,000.00		
Mary M. Wismer	1,000.00		
		\$7,500.00	
Improvements, etc., on buildings, etc., held as investments:			
Johnson Building site	2.00		
Sacramento Building (Blake, Moffitt and Towne Building)	16.85		
<i>Carried forward</i>	\$18.85	\$606,933.17	\$2,144,869.14

EXPENDITURES

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<i>Brought forward</i>	\$18.85	\$606,933.17	\$2,144,869.14
Lots on Sixth street, West Berkeley, street work	87.07		
Broadway terrace lots, Oakland: abstracts, etc.	128.05		
		233.97	
Income, etc., on Savings Bank deposits, treated as increase of investment:			
Central Savings Bank of Oakland	\$569.84		
First Federal Trust Co. of San Francisco	374.11		
		943.95	
Jane K. Sather Legacy: Payments made as follows:			
To Trustee for beneficiaries	\$10,595.75		
Legal expenses, etc., for settlement of estate	2,517.70		
		13,113.45	
Valuations of properties:			
Increased valuation in inventory of equipment	\$617,111.11		
Pacific Telephone and Telegraph Co.: 10 bonds donated by Mrs. Drexler for the University Hospital Building Fund	10,000.00		
Valuation of 4,200 acres in Humboldt County, donated for establishment of the George Williams Hooper Foundation for Medical Research	1,000,000.00		
Property on Sylvan way and College avenue, Berkeley: donated by Associated Student body	10,075.00		
		1,637,186.11	
Buildings torn down:			
University Cottage No. 2	\$1,200.00		
Plant House	257.00		
		1,457.00	
			2,259,867.65
			<u>\$4,404,736.79</u>

SCHEDULES REFERRED TO IN THE BALANCE SHEET FOR JUNE 30, 1913

A. REAL ESTATE IN BERKELEY

NOTE.—Italics indicate a gift

<i>Campus lands</i> (given by the College of California and its friends)	\$1,000,000.00
<i>Hearst Hall site and Hearst Cottage site</i> (the gift of Mrs. Phoebe A. Hearst)	7,000.00
Hillegass Tract	194,991.04
Palmer House site (on Piedmont Avenue)	17,500.00
Barrow Street property (buildings and lands), purchased for the Campus	63,500.00
Watershed Lands (in Strawberry Cañon)	167,655.88
Sylvan Way property (buildings and lands), purchased for the Campus....	15,395.00
<i>Sylvan Way and College Avenue</i> (buildings and lands), donated by the Associated Student Body for the Campus	31,924.58
	\$1,497,966.50

B. BUILDINGS AND IMPROVEMENTS IN BERKELEY

In active use for University purposes:

Acad House	\$480.00
Agricultural Building (Budd Hall)	7,200.00
Agriculture Hall: Expenditures to June 30, 1913	211,913.95
Anatomical Laboratory and Printing Office	6,400.00
Architectural Building	12,248.08
<i>Bacon Library Building</i> (for this Henry Douglas Bacon gave \$25,000)	60,515.74
Bacteriological Laboratory	480.00
Barns	2,000.00
<i>Boalt Hall of Law</i> : (for this Mrs. Boalt has given \$100,000 and the lawyers of California have subscribed \$50,000; balance to be paid from Permanent Building Fund)	159,287.61
Botany Building	5,600.00
<i>Bridge at Faculty Club</i>	1,387.92
Bridge at Football Statue	3,384.33
<i>Bridge at Sather Gate</i>	10,922.86
<i>California Field</i> (improvements of football grounds; built by the Associated Students)	20,000.00
California Hall	271,711.33
<i>Campanile</i> (expenditures to June 30, 1913: built out of the Jane K. Sather bequest)	7,232.79
Carpenter's Shop, building and machinery	4,033.19
Cement sidewalks	596.25
Chemistry Auditorium	36,222.57
Chemistry Building	81,000.00
Chemistry Storehouse	10,426.03

Carried forward \$913,042.65

BALANCE SHEET--SCHEDULES

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Brought forward \$913,042.65

<i>Cinder Path</i> (old athletic path; built by the Associated Students)	1,000.00
Civil Engineering Hall	38,582.61
Civil Engineering Laboratory	2,400.00
Civil Engineering Testing Laboratory	8,220.14
Conservatory	10,800.00
Dairy Barn	2,400.00
Dairy Milk House, equipment, etc.	4,160.60
Manure Pit	1,031.15
East Hall	18,000.00
Entomological Laboratory	2,569.99
<i>Faculty Club</i> (built by the Faculty Club)	12,000.00
Fertilizer Control Laboratory	14,615.29
<i>Girton Hall</i>	4,032.34
<i>Greek Theatre</i> (the gift of William Randolph Hearst)	45,000.00
<i>Harmon Gymnasium</i> (the original building was the gift of A. K. P. Harmon)	50,181.89
<i>Hearst Hall</i> (the gift of Mrs. Phoebe A. Hearst)	35,978.30
<i>Hearst Memorial Mining Building</i> (the gift of Mrs. Phoebe A. Hearst as a memorial to her husband, Senator George Hearst)	644,400.00
Hog Pens, etc., in Strawberry Cañon for Hog Serum work	4,205.36
Hygiene and Pathology Laboratory	24,940.02
Landscape Gardening (grading, walls, etc.)	3,118.85
Mechanics Building	61,025.00
<i>John Mitchell Monument</i> (erected by the University Cadets)	358.95
<i>Museum Building, Archaeology</i> (the gift of Mrs. Phoebe A. Hearst)	3,667.77
New permanent roads	78,914.99
North Hall	20,000.00
Nursery and Propagating House	1,500.00
Philosophy Building	8,000.00
Plant Houses	700.00
Platform Scales	350.00

Power, Light and Heat Plant:

Central Station: Building and machinery	\$73,421.29	
Workshop for Electric Light and Power Dept.	1,040.40	
Electric construction on Campus	9,430.68	
Heating System (exclusive of Central Station)	42,347.16	
		126,239.53
President's House		113,868.35
Rifle Range		501.90
<i>Sather Gateway</i> (the gift of Mrs. Jane K. Sather)		35,797.16
<i>Senior Hall</i> (given by the Order of the Golden Bear)		4,676.98
Shops (carpenter, painter, etc.)		1,200.00
South Hall		126,000.00
South Hall addition		5,463.80
<i>Rudolph Spreckels Temporary Physiological Laboratory</i> (the gift of Rudolph Spreckels)		25,000.00
Storehouse (Grounds and Buildings Department)		635.53
Storehouse (General)		728.43
Strawberry Cañon weir		569.80
Students' Infirmary		24,476.23

Carried forward \$2,480,353.61

<i>Brought forward</i>	\$2,480,353.61
Students' Observatory	8,500.00
Swimming Tank	17,200.00
Tennis Courts	21,970.89
Tool House in Botany Garden	282.90
Trunk Sewer	6,356.10
<i>University Library</i> (built out of the Charles Franklin Doe bequest)....	683,437.00
Viticultural Laboratory	400.00
<i>Zoology, California Museum of Vertebrate</i> (Miss Annie M. Alexander gave \$7,000 toward the cost of the building)	15,094.31
Dwellings rented:	
<i>Hearst Cottage, College Avenue</i> (given by Mrs. Phoebe A. Hearst)	\$2,750.00
Palmer House (Piedmont Avenue)	2,500.00
University Cottages (Allston Way)	8,400.00
	<hr/> 13,650.00
	<hr/> \$3,247,244.81

C. REAL ESTATE AND IMPROVEMENTS NOT IN BERKELEY

Utilized for University purposes:

San Francisco:

Affiliated Colleges (the land was given by Adolph Sutro)	\$405,707.74
<i>San Francisco Institute of Art</i> (the gift of Edward F. Searles)	235,150.00

Wilmerding School:

New building	\$50,852.22
Old building	24,906.46
Real estate	60,030.55
	<hr/> 135,789.23

776,646.97

Lick Observatory:

<i>Lands, Buildings and Equipment</i>	\$610,000.00
Holden Tract	511.25
Cook Tract	960.00
Hartzoke Tract	262.73
Duckworth Tract	316.42
Electric Light and Power Plant	11,606.23
Photographic Vault	19,834.70
Tank	2,701.00
Barn	1,254.95
Dormitory and Cottages—Expenditures to June 30, 1913; on account of earthquake replacement	55,169.08
	<hr/> 702,616.36

Pacific Grove:

<i>Real Estate of Herzstein Seaside Laboratory</i> (given by Dr. M. Herzstein)	2,500.00
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Carried forward \$1,481,763.33

BALANCE SHEET—SCHEDULES

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Brought forward \$1,481,763.33

Davis (University Farm):

Lands	\$103,290.00	
Water right	3,895.53	
		107,185.53
Dairy Building and Livestock Pavilion	32,303.73	
Cottages Nos. 1 and 2	7,951.45	
Cottage for foreman	3,400.00	
Workshops	6,529.50	
Brooder House	1,500.00	
Seed House	9 913.00	
Poultry House	5,368.00	
Sewerage and water systems	21,024.00	
Dining Room Building	12,606.45	
Dormitory No. 1	28,000.00	
Heating System in Dormitory No. 1	1,565.75	
Dormitory No. 2	33,394.00	
Sheep Barn	4,530.00	
Horse Barn	6,880.00	
Horticultural Building	19,163.00	
Dairy Barn	17,338.00	
Hog Barn	4,000.00	
Silo	1,537.50	
Veterinary Science Building	7,600.00	
Office Building	6,907.00	
Viticulture Grafting Building	400.00	
Miscellaneous	52,466.20	
		385,563.11

Southern California Pathological Laboratory:

Real Estate at Riverside	\$2,500.00	
Buildings at Riverside	22,500.00	
Buildings at Whittier	12,821.31	
		37,821.31

Imperial Valley:

Buildings at Meloland	3,021.53	
Kearney Estate (5,400 acres near Fresno, bequeathed by M. Theo. Kearney)	1,000,000.00	

Los Angeles Medical Department: Lands, Buildings and

Equipment (given by the Los Angeles College Clinic Association)	\$100,000.00	
Hospital Buildings	24,999.70	
		124,999.70

Scripps Institution for Biological Research: Buildings and

Lands donated—not yet valued on our books.		
Buildings erected out of donations by Mr. Scripps	\$13,025.20	
		13,025.20

Carried forward \$3,046,194.18

<i>Brought forward</i>		\$3,046,194.18
Other Real Estate:		
*Congressional Lands	\$11,818.27	
†Public Building Lands	800.00	
Potrero Avenue lots (originally bought for the Medical Department)	10,364.39	
<i>Real Estate in Tulare Country: Whitaker forest</i>	9,600.00	
		32,582.66
		<u>\$3,078,776.84</u>

D. INVESTMENTS

Bills Receivable, Bonds, Stocks, and Real Estate, etc.

Bills Receivable:

Mortgage loans	\$1,382,897.01
Collateral loans	10,000.00
J. B. Reinstein (note as donation for University Hospital)	1,000.00
Loans from the Class of 1881 Loan Fund	1,061.00
Loans from the Class of 1886 Loan Fund	2,486.10
Loans from the Class of 1895 Loan Fund	567.00
Loans from the Class of 1898 Loan Fund	108.00
Loans from the Class of 1903 Loan Fund	1,062.00
Loans from the Class of 1909 Loan Fund	1,197.25
Loans from the Class of 1911 Loan Fund	832.50
Loans from the E. A. Denicke Loan Fund	1,435.00
Loans from the Grubstake "W" Loan Fund	332.00
Loans from the Medal Loan Fund	250.00
Loans from the Napa Seminary Loan Fund	395.00
Loans from the Walton Memorial Loan Fund	735.00
Loans from the "Loan Fund No. 2"	200.00
	<u>\$1,404,557.86</u>

Bonds:

Bear Gulch Water Company (par value)	\$164,000.00
Bohemian Club Bonds (par value)	900.00
Montgomery Avenue Bonds (par value \$22,000)	1.00
Oakland Traction Consolidated (par value \$15,000)	14,662.50
Pacific Telephone and Telegraph Co. (par value)	10,000.00
Sacramento Electric Gas and Railway Co. (par value \$1,000)	1,020.00

Carried forward \$190,583.50 \$1,404,557.86

* This is 3954.47 acres of land still on hand from the original grant of 150,000 acres; all have once been sold, but these have come back to the University by foreclosure or cancellation of contracts.

† This is 320 acres of land still on hand from the original grant of 6400 acres; all have once been sold, but these have come back to the University by foreclosure or cancellation of contracts.

NOTE.—This schedule does not include certain lands which have been deeded to the University of California with the restriction that they shall be used for carrying on experimental work; if such work be discontinued, the land is to revert to the original donors.

BALANCE SHEET—SCHEDULES

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Brought forward \$190,583.50 \$1,404,557.86

Southern Pacific Railroad 1st Mortgage Refunding 4 per cent Gold Bonds (par value \$33,000)	32,937.50	
State Treasurer (vide Cal. Stats. 1899:93)	751,000.00	
State Treasurer: Diverted Funds (vide Cal. Stats. 1899:93)	79,750.00	
Tonopah United Water Company Bonds (par value)....	20,000.00	
		<hr/> 1,074,271.00

Stocks:

Weinstock-Lubin Real Estate Co. (500 shares pre- ferred, par value \$5,000)	\$5,000.00	
Fireman's Fund Insurance Co. (100 shares common, par value \$10,000)	21,000.00	
Sather Banking Company (200 shares Sather Banking Company, common stock, par value \$20,000; in liquidation)	1,500.00	
Mackay Companies (704 shares preferred, par value \$70,400)	50,000.00	
*Kennedy Mining and Milling Co. (1200 shares com- mon, par value \$120,000)	1.00	
Bank of California (100 shares, par value \$10,000)....	20,550.00	
University Land and Improvement Company Cloyne Court (2,500 shares, common, par value \$2,500)....	2,500.00	
Stocks, Notes and Mining Claims (Thompson Fund) ...	1.00	
		<hr/> 100,552.00

NOTE.—The University of California also holds \$400,000 stock of
the Bear Gulch Water Company not valued on the books.

Real Estate and Improvements:

Real Estate in West Berkeley (4 lots on Sixth Street)	\$2,170.18
Real Estate in Escondido (76 acres)	2,000.00
Real Estate in Humboldt County (4,200 acres)	1,000,000.00
Real Estate in Menlo (1,390 acres)	20,763.25
Real Estate in Oakland (14th and Washington).....	400,000.00
Real Estate in Oakland (157 Santa Clara Avenue)....	3,800.00
Real Estate in Oceanside (75 x 100 feet)	1,800.00
Real Estate in Redlands	5,714.10

Real Estate in San Francisco:

Johnson Building site	\$400,000.00	
Johnson Building Reconstruction	2,841.00	
Sacramento Building and site	309,413.78	
		<hr/> 712,254.78
Real Estate on Dearborn St., Chicago (Thompson bequest)	50,000.00	
Real Estate in Salt Lake City (Lot 6, Block 12, Plot E) (Thompson bequest)	3,500.00	
		<hr/> 2,202,002.31
Carried forward		<hr/> \$4,781,383.17

* These stocks were received in April, 1907, as a part of distribution of Doe
Estate. They were valued at \$6,000 and dividends were credited to this valuation.

<i>Brought forward</i>	\$4,781,383.17
Balance of contract for sale of real estate (80 feet on Eunice St., North Berkeley)	400.00
Balance of contract for sale of Broadway Terrace lots, Oakland	59,075.00
	<hr/> 59,475.00
	<hr/> \$4,840,858.17

E. DEPARTMENTAL ACCOUNTS AND OTHER EXPENDITURES CARRIED
FORWARD TO YEAR 1913-14

Agriculture	\$25.00
Anatomy	81.77
Anthropology	200.00
Architecture	30.17
Botany	14.49
Chemistry	34.44
Civil Engineering	1,420.33
Dentistry	89.86
Drawing	13.15
Electric Light and Power: General construction	4,958.21
Electric Light and Power: Current repairs	1,159.29
Geography	36.60
Irrigation	12.72
Lick Observatory	42.52
Los Angeles Medical Department: State appropriation for maintenance....	25.48
Mechanics	19.08
Medicine	665.67
Mining	48.58
Palaeontology	51.21
Pathology and Bacteriology	539.21
Physiology and Physiological Chemistry	163.69
Political Science	115.33
Postage	360.30
President's Contingent	250.00
Printing Office	75.14
Publications	100.00
Site	193.20
Storehouse	5,101.25
Zoology	592.31
Expenditures on the erection and equipment of dormitory and two cottages at Lick Observatory, destroyed by earthquake, July 1, 1911: this will ultimately be made good by Special State Appropriation of \$50,000, the balance being charged to Permanent Building Fund.....	55,169.08
Swimming Pool Pumping Outfit: Expenditures to be made good in part from receipts of Gymnasium Fees and in part from receipts of the Summer Session	1,552.43
Bath House and Equipment: Expenditures to be made good ultimately from receipts of Gymnasium Fees	3,047.45
Swimming Tank: Expenditures to be made good ultimately from receipts of Gymnasium Fees	2,936.99
	<hr/>
<i>Carried forward</i>	\$79,124.95

BALANCE SHEET—SCHEDULES

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<i>Brought forward</i>		\$79,124.95
Class of 1907 Permanent Endowment Fund Interest: for purchase of books		2.92
J. K. Sather Law Library Fund Interest: for purchase of books		77.27
George Williams Hooper Endowment Fund Interest		5.05
Richardson Latin Translation Prize Fund Interest		159.25
Expenditures on the erection and furnishing of buildings, paid out of Permanent Building Fund moneys: to be made good by charges against that fund in annual installments of \$20,000 for each enterprise:		
Agricultural Hall: Erection of Building		
Total expenditures to date	\$211,913.95	
Less charged to Permanent Building Fund	80,000.00	
		131,913.95
Doe Library: Furnishing and Equipment:		
Total expenditures to date	\$185,509.76	
Less charged to Permanent Building Fund	80,000.00	
		105,509.76
		<u>\$316,793.15</u>

There is also an amount of \$107,655.88 for expenditures on purchase of Watershed Lands still to be charged to the Permanent Building Fund in annual installments of \$20,000.

F. AMOUNTS DUE FROM THE STATE OF CALIFORNIA UNDER VARIOUS APPROPRIATIONS

General Support	\$8,333.37
Chair of Music	750.00
Hog Cholera Serum	1,595.80
Insecticides and Fungicides	869.82
University Farm: Buildings	5,019.66
University Farm: Equipment	129.18
University Farm: Implements, etc.	665.65
University Farm: Improvements of grounds	840.54
University Farm: Light, water, power and sewer	591.51
University Farm: Livestock	2,089.78
University Farm: Salaries	7,589.75
University Farm: Support	5,124.41
Imperial County Investigations	646.58
Southern California Pathological Laboratory	4,454.49
Southern California Pathological Laboratory Equipment	278.04
Riverside Buildings and Lands	540.91
Whittier: Erection of barn	5.34
Whittier: Heating plant	6.35
Whittier: Enlargement of plant	24.31
	<u>\$39,555.49</u>

G. ENDOWMENT FUND ACCOUNTS

Alumnae of Young Women's Christian Association of the University of California Fund (income to be devoted to the payment of salary of the secretary of the undergraduate Y. W. C. A. of the University of California)	\$600.00
Alumni Association: Life Membership Fund (income for use of Alumni Association)	3,990.54
Alumni Hall Fund (gifts of Alumni for building of a Student Clubhouse)	9,657.56
Alumnus Book Fund	4,300.00
Class of 1874 Library Fund	52.91
Class of 1881 Loan Fund	1,118.60
Class of 1886 Loan Fund	4,669.11
Class of 1887 Library Fund	440.00
Class of 1895 Loan Fund	673.00
Class of 1897 Library Fund	105.08
Class of 1897 Loan Fund	1,018.45
Class of 1898 Loan Fund	208.71
Class of 1900 Library Fund	628.50
Class of 1902 Library Fund	125.00
Class of 1903 Loan Fund	1,106.86
Class of 1905 Fund (balance after providing for a memorial bench and chair)	76.19
Class of 1907 Permanent Endowment Fund (income for the purchase of books)	500.00
Class of 1907 Permanent Endowment Fund (income for the benefit of the class)	150.00
Class of 1908 Fund (income for the benefit of the class)	212.51
Class of 1909 Endowment Fund (income for the benefit of the class)	600.00
Class of 1909 Loan Fund (income for the benefit of the class)	1,200.00
Class of 1910 Endowment Fund (income for the benefit of the class)	1,350.00
Class of 1911 Fund (income for the benefit of the class)	1,000.00
Class of 1911 Loan Fund (income for the benefit of the class)	758.72
Class of 1912 Fund (income for the benefit of the class)	1,900.00
P. Charles Cole Scholarship Fund	2,384.89
Thérèse F. Colin European Fellowship Fund (given by Prof. Thérèse F. Colin for European study in French)	10,961.94
Consolidated Perpetual Endowment Fund (sale of lands under Federal and State grants, savings of income, etc.)	2,062,692.18
Emily Chamberlain Cook Prize Fund (given by Prof. Albert S. Cook as a memorial to his wife, for an annual prize for a poem)	1,137.19
W. Davis Scholarship Fund (given for the establishment of a scholarship in the University of California to either sex who is a bonafide resident of the State)	5,000.00
E. A. Denicke Library Fund (given by former Regent Ernest A. Denicke)	2,000.00
E. A. Denicke Loan Fund (bequeathed to the University of California for the purpose of making loans to members of the faculty)	5,462.40
Dental Endowment Fund (this is the surplus of the Dental Department for 1909-10 which was made into an endowment fund for the Dental Department; the income derived from this fund has not been used but has been added to the principal)	5,158.83
Carried forward	\$2,131,239.17

<i>Brought forward</i>	\$2,131,239.17
Doe Library Fund (bequeathed by Charles Franklin Doe; this is the balance after providing for the expenditure on erection of building up to June 30, 1913, which amounted to \$683,437.00)	71,920.24
Cora Jane Flood Endowment Fund (gift of Miss Flood for the College of Commerce)	346,241.83
James M. Goewey Scholarship Fund	12,415.50
Grubstake "W" Loan Fund (given by anonymous friend)	393.41
Hamerslag Loan Fund (income to be used for loans to students)	6,000.00
Hesse Memorial Scholarship Fund	3,800.00
Charles M. Hitchcock Endowment Fund (for lectures upon scientific and practical subjects)	10,000.00
George Williams Hooper Endowment Fund (for the foundation and endowment of a School of Medical Research)	1,000,000.00
Cornelius B. Houghton Scholarship Fund	3,000.00
S. C. Irving Prize Fund (income to be used as an annual prize to be awarded to a member of the student body for the best anecdote, story, poem or drawing illustrative of American wit and humor)	500.00
Albert Sidney Johnston Memorial Scholarship Fund (income to be used for the scholarship for some descendant of a Confederate veteran or of a daughter of the Confederacy)	3,500.00
Carrie M. Jones Scholarship Fund (bequeathed to the University for undergraduate scholarships to male students)	100,000.00
Jucksch Donation (gift of Mary Jucksch: the income is used for purchase of books in American history)	600.00
*Kearney Bequest (cash)	840.57
Martin Kellogg Fellowship Endowment Fund (given by Mrs. Martin Kellogg for a fellowship at the Lick Observatory)	20,000.00
Leona Lebus Endowment Fund (given by Mrs. Martha C. Lebus in fulfillment of the will of her daughter, Miss Leona Lebus: the income is for the care at the University of California Hospital of chronic cases, preferably of non-residents of San Francisco)	4,000.00
Le Conte Memorial Fellowship Fund (given by the Alumni Association in memory of John and Joseph LeConte)	10,026.47
Lick Observatory Fund (balance remaining of the bequest of James Lick after erection and equipment of the Observatory)	90,018.16
Loan Fund No. 2	200.00
John W. Mackay Jr. Endowment Fund (given half by Mrs. John W. Mackay and half by Clarence Hungerford Mackay as an endowment for electrical engineering)	100,000.00
Massachusetts Relief Fund (moneys given by the citizens of Massachusetts for relief after the San Francisco fire of 1906, and, by their request, granted by the San Francisco Relief and Red Cross funds for the endowment of the University of California Hospital)....	100,009.00
Medal Loan Fund (proceeds from the sale of University medals refused by Joseph B. Garber, class of 1892; Miss Katherine Felton, class of 1895; and Arthur M. Seymour, class of 1891, the medalists of their respective classes)	305.52
<i>Carried forward</i>	\$4,015,000.87

*\$25,000 was received in cash from the distribution of the M. Theo. Kearney Estate. Certain claims, etc., against the estate have been liquidated out of this amount. Whatever balance has been in this fund has been loaned to the Kearney Vineyard Company without interest.

<i>Brought forward</i>	\$4,015,000.87
Men's Dormitory Fund (given by the students, etc.)	411.31
Eugene Meyer Jr. Library Endowment (for historical books)	2,000.00
D. O. Mills Endowment Fund (given by D. O. Mills for the endowment of a Professorship of Intellectual and Moral Philosophy and Civil Polity)	160,988.61
Napa Seminary Loan Fund (the gift of the Napa Seminary Club; to provide for loans to undergraduate students of the Junior or Senior classes)	414.69
Paget Scholarship Fund (bequeathed by Mme. Emmanuel Marie Paget for the Professor F. V. Paget Scholarship for a student in French)....	3,009.09
Philo Sherman Bennett Prize Fund (given by William Jennings Bryan for an essay on the Principles of Free Government)	574.35
Frank M. Pixley Scholarship Fund (bequeathed by Amelia V. R. Pixley for a scholarship for a student in law)	3,563.22
Prytanean Hospital Fund (gift by Prytanean Society for the equipment of the Student Infirmary)	1,072.01
Michael Reese Library Fund (gift of Michael Reese; income to be used for the purchase of books)	50,000.00
Richardson Latin Translation Prize Fund (bequeathed by Professor George Morey Richardson; income for prize in Latin translation).....	1,600.00
Hermann Royer Endowment Fund (bequeathed by Hermann Royer for founding a Professorship of Political Economy)	4,095.96
Sheffield Sanborn Scholarship Fund (given by Mrs. James Horsburgh, Jr., to endow one scholarship in medicine and one in law at Berkeley and one in law at the Hastings College of Law)	15,000.00
Jane K. Sather Classical Chair Fund (the gift of Mrs. Jane K. Sather for the endowment of a chair of classical literature; any income remaining unused at the end of each fiscal year is to be added to the principal)	108,686.17
Jane K. Sather Historical Chair Fund (the gift of Mrs. Jane K. Sather for the endowment of a chair of history; any income remaining unused at the end of each fiscal year is to be added to the principal)	103,686.25
Jane K. Sather Law Library Fund (the gift of Mrs. Jane K. Sather; income to be devoted to the support of a law library)	21,543.35
Jane K. Sather Library Fund (the gift of Mrs. Jane K. Sather: income to be devoted to support of a law library)	10,000.00
Jane K. Sather Historical Library Fund (the gift of Mrs. Jane K. Sather: income to be devoted to the purchase of historical books for the library)	12,461.68
Jane K. Sather Fund for the erection of Campanile and Bells (the gift of Mrs. Jane K. Sather; the principal to be used for the erection of the campanile and bells; income to be added to the Jane K. Sather Fund awaiting distribution)	225,000.00
Jane K. Sather Fund awaiting distribution (the gift of Mrs. Jane K. Sather; income to be added to the principal; the principal of this fund will be utilized for further payments that may have to be made to beneficiaries or for inheritance taxes, or for the completion of the Sather Gate if more is needed for that purpose or for anything in the nature of expenditures that would reduce the capital to the amount donated to the University by Mrs. Jane K. Sather. What is	
<i>Carried forward</i>	\$4,739,107.56

<i>Brought forward</i>	\$4,739,107.56
eventually left in this fund will be divided equally between the Jane K. Sather Historical Chair Fund and the Jane K. Sather Classical Chair Fund)	53,040.45
Special Senior Class Loan Fund (this fund was originally donated for the purpose of providing loans to senior students during the fiscal year ending June 30, 1912; loans were made to students without interest in accordance with the terms of the original gift; the total fund of \$1,000 was returned to the donor; this amount is the income earned by including the unloaned portion of the fund in the endowment pool. The donor has since re-donated this amount of \$1,000 to the University for the purpose of making loans to students during the coming fiscal year)	46.11
Horatio Stebbins Scholarship Fund (donated by a friend of the University to provide for a scholarship for a woman student at the University of California)	4,000.00
Students' Co-operative Society Fund (this is the surplus of the Students' Co-operative Society which has been placed in the hands of the University. The University guarantees interest on this at 5 per cent per annum, this interest to accumulate semi-annually and the money to be available to be withdrawn when the Students' Co-operative Society may so desire)	11,833.09
Summer Session Endowment Fund (this is part of the surplus of the session of 1911 which has been set apart as an endowment fund; income to be used for the purpose of purchasing special equipment)..	6,000.00
Willard D. Thompson Memorial Scholarship Fund (the gift of Mrs. Jennie D. Thompson as a memorial to her son, Willard D. Thompson '94, the income to be used for scholarships for students from the State of Utah)	55,141.98
Edward Tompkins Endowment Fund (the gift of Edward Tompkins for the foundation of the Agassiz Professorship of Oriental Languages and Literature)	106,829.09
University Hospital Building Fund	35,319.11
University Hospital Endowment Fund	649.68
University Hospital Endowment Fund (J. B. Reinstein)	1,000.00
University Hospital Endowment Fund (given by the San Francisco Maternity)	10,000.00
University Medal Fund (given by friends of the University of California; the income to be used to give a medal to the most distinguished scholar of each year)	3,896.00
Veltin Endowment Fund (given by the students of the Veltin School; the income to be used for the Student Infirmary)	1,000.00
Frank J. Walton Memorial Loan Fund (given by the Class of 1883 as a memorial to their classmate. The income only is to be loaned to students. When the fund shall exceed the sum of \$20,000 scholarships at Berkeley may be established out of the surplus)	6,354.30
Barbara Weinstock Lectureship Fund (the gift of Colonel H. Weinstock, in memory of his mother, for an annual lecture on "The Morals of Trade")	6,687.93
Whiting Fund (bequeathed by Professor Harold Whiting; the income to be expended for the benefit of the Department of Physics)	25,000.00
<i>Carried forward</i>	\$5,065,905.30

<i>Brought forward</i>	\$5,065,905.30
J. Clute Wilmerding Endowment Fund (bequeathed by J. Clute Wilmerding for the establishment and endowment of the Wilmerding School of Industrial Arts)	449,000.00
Women's Dormitory Fund	2,183.57
Young Women's Christian Association Endowment Fund (income payable to the Y. W. C. A. to be used in payment of salary of a secretary)	5,000.00
	<u>\$5,522,088.87</u>

NOTE.—The relation between the total endowments and the total of investments as appearing in the balance sheet, is shown as follows:

Investments	\$4,840,858.17
Loss on Montgomery Avenue bonds (litigation is now in progress to recover this amount)	21,999.00
Endowment Fund moneys loaned at interest to the Permanent Building Fund	324,319.49
Endowment Fund moneys loaned at interest to the General Fund	400,330.42
	<u>5,587,507.08</u>
Endowment Funds	\$5,522,088.87
Gains in Endowment Pool Investments	65,418.21
	<u>\$5,587,507.08</u>

H. BALANCES ON HAND IN FUND INTEREST ACCOUNTS, WHICH ARE USED FOR SPECIFIC PURPOSES

Alumnus Book Fund	\$108.16
Philo Sherman Bennett Prize Fund	2.19
Class of 1874 Library Fund	18.05
Class of 1887 Library Fund	25.45
Class of 1897 Library Fund	41.08
Class of 1900 Library Fund	49.98
Class of 1902 Library Fund	40.73
Thérèse F. Colin European Fellowship Fund (portion from April 7, 1913)	17.89
Emily Chamberlain Cook Prize Fund	13.73
W. R. Davis Scholarship Fund	30.99
James M. Goewey Scholarship Fund	3,645.98
Hammerslag Loan Fund	1,071.23
E. A. Denicke Library Fund	96.11
Charles M. Hitchcock Endowment Fund	1,593.53
Cornelius B. Houghton Scholarship Fund	412.86
Samuel C. Irving Prize Fund	25.00
Albert Sidney Johnston Memorial Scholarship Fund	66.36
Carrie M. Jones Scholarship Fund	1,850.82
Jucksch Endowment Fund	5.03
Martin Kellogg Fellowship Fund	700.00
Le Conte Memorial Fellowship Fund	727.19
John E. Mackay Jr. Endowment Fund	7,105.01
Eugene Meyer Jr. Library Fund	49.90
	<u>\$17,697.27</u>

Carried forward \$17,697.27

BALANCE SHEET—SCHEDULES

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<i>Brought forward</i>	\$17,697.27
D. O. Mills Endowment Fund	4,403.42
Professor F. V. Paget Scholarship Fund	484.96
Frank M. Pixley Scholarship Fund	122.78
Michael Reese Library Fund	213.60
Sheffield Sanborn Scholarship Fund	638.09
Jane K. Sather Historical Library Fund	461.67
Jane K. Sather Library Fund	343.48
Horatio Stebbins Scholarship Fund	61.76
Summer Session Endowment Fund	543.61
Willard D. Thompson Memorial Fund	43.68
Tompkins Endowment Fund	1,919.84
University Medal Fund	391.61
Veltin Endowment Fund	123.82
Barbara Weinstock Lectureship Fund	391.42
Whiting Fund	429.74
J. Clute Wilmerding Endowment Fund	7,173.55
	<hr/>
	\$35,444.30

J. BALANCES ON HAND IN DONATION ACCOUNTS

Catherine Allen Scholarship	\$125.00
Agassiz donation	447.30
Belladonna Research, donation for	75.00
Boalt Hall of Law, donations for building (the total donations to be received will amount to \$150,000, which will be applied toward the cost of erection of building)	111,355.80
Class of 1910, donation for bridge over Strawberry Creek	112.08
Tracy Crane, Scholarship for	62.50
Ethel W. Crocker, donation for Mexican Archaeological Research	1,031.64
William H. Crocker, donation to Lick Observatory for apparatus	292.86
Dental Department, donation for	14.40
Margaret B. Fowler, donation for Zoology	203.97
J. F. Fugazi, donation for Architectural books	100.00
Gown Fund (for purchase of President's academic gown)	84.77
Greek Theatre, donations for marble chairs	828.84
Mrs. Hearst, donation to Lick Observatory for swimming pool	450.00
Mrs. Hearst, donation to Architectural department .....	.04
Dr. M. Herzstein, donation for Physiological Laboratory	775.76
Bust of Professor Hilgard, donations for	1.38
History I, donation for books	134.23
E. C. Hutchinson, donation for books	60.00
Irish books, donation for	273.18
Mary Lake Memorial, donation for books	359.85
M'Bride, Sir Richard, donation for equipment of Bancroft Library	500.00
D. O. Mills, donation to Lick Observatory for Southern Hemisphere Expedition	109.11
James K. Moffitt, donation for books	58.53
James K. Moffitt, donation for books on History	1,200.00
Nitrogen Fertilizers, donation for investigation of	291.98
Pacific Coast Gas Association, donation for Gas Engineering course	2,657.15
	<hr/>
<i>Carried forward</i>	\$121,605.37

<i>Brought forward</i>	\$121,605.37
Palaeontology, donation for, by "A friend"	9.66
Richardson donation to Library	12.20
Sather Gateway donation, balance on hand	4,097.71
E. W. Scripps donation for Biological Research	3,909.22
Spinello Library donation	46.91
F. M. Smith Fellowship	54.05
Claus Spreckels, donation for books	270.03
Student Infirmary, donations for	257.70
Caroline Thorsen, donation to Library for Anatomy books	12.59
Anna M. Tietjen Undergraduate Scholarship	125.00
Stadium, donations for	100.00
University Hospital, donation for apparatus by H. C. Moffitt	908.82
Tennis Court, donations for	295.50
University Hospital, donation by Mrs. Drexler	117.97
University Hospital, donation for X-ray apparatus	1,500.00
Zoology donation by Class of 1911	10.50
	<hr/>
	\$133,333.23

K. BALANCES ON HAND TO BE USED FOR SPECIFIC PURPOSES

Library Exchange	\$72.29
California Educational Butter Scoring Contest	283.51
Fertilizer Control	12,261.54
Insecticide and Fungicide Registrations	940.59
Hog Cholera Serum, sales of	8,415.16
Official Advanced Registry Tests	224.10
University Farm: Creamery sales	1,000.00
University Farm: Dormitory receipts	201.00
University Farm: Poultry sales	20.00
University Farm: Sales fund	45.00
University Farm: Students' deposits	29.65
Sale of a brief account of Lick Observatory	516.46
Sale of Keeler Volume	212.00
Sale of Miss Shinn's Pamphlet	113.46
Sale of Tebtunis Papyri	384.47
Sale of "Zoe"	19.63
State Appropriation: Cereal Investigations	604.36
State Appropriation: Farmers' Institutes	460.80
State Appropriation: Viticulture	29.41
State Appropriation: Affiliated Colleges (improvement of grounds)	326.95
*Summer Session Fees:	
Summer Session	\$26,737.51
Home Economics	563.50
Manual Training	521.36
Public Health	310.00
Civil Engineering	50.41
	<hr/>
	28,182.78
Musical and Dramatic Entertainments	965.66
Students' Infirmary, excess of receipts over expenditures to date	2,371.01
	<hr/>
	\$57,679.83

* In addition to these, certain fees will be retained from Chemistry and Physics.

L. SUNDRY CREDITORS

Sundry Vouchers (bills approved for payment)	67,197.15
Treasurer's Advances (bills already paid by Treasurer's advance checks)	157,433.43
Alumnae of Y. W. C. A. of University of California Fund Interest (payable to Secretary of Y. W. C. A.)	15.00
Class of 1907 Permanent Endowment Fund Interest (payable to Secretary of Class)	48.53
Class of 1909 Permanent Endowment Fund Interest (payable to Secretary of Class)	36.55
Class of 1910 Permanent Endowment Fund Interest (payable to Secretary of Class)	35.93
Class of 1911 Permanent Endowment Fund Interest (payable to Secretary of Class)	70.74
Class of 1912 Permanent Endowment Fund Interest (payable to Secretary of Class)	122.26
Young Women's Christian Association Endowment Fund Interest (payable to Secretary)	125.00
Thérèse F. Colin European Fellowship Fund Interest (portion to April 7, 1913, payable to the Estate of the late Thérèse F. Colin)	20.65
Deposits on Plans	135.25
Associated Students, University of California, Rents, etc.	1,100.79
Certified checks accompanying bids, returnable to contractors	22,632.75
Sundry Creditors	1,348.54
Students' Deposits:	
Agriculture	\$52.10
Anatomy	37.50
Bacteriology	28.00
Botany	98.50
†Chemistry	1,633.65
Key Rental	253.95
Library	682.00
Mechanics	217.30
Medicine	227.92
Military Uniforms	19.00
Mining	71.45
†Physics	860.20
Physiology	50.60
Zoology	200.36
Zymology	21.05
Summer Session Civil Engineering Commissary:	
Account 1908	\$1.07
Account 1909	3.80
Account 1910	7.44
Account 1911	7.03
Account 1912	29.10
Account 1913	1,186.98
	5,689.00
	\$256,011.57

† Some portion of these will be ultimately credited to Summer Session.

UNIVERSITY OF CALIFORNIA—BALANCE SHEET, JUNE 30, 1913

Letters refer to preceding schedules

ASSETS

Real Estate and Improvements:

A.—Real Estate in Berkeley	\$1,497,966.50
B.—Buildings and Improvements in Berkeley	3,247,244.81
C.—Real Estate and Improvements not in Berkeley	3,078,776.84
	<u>\$7,823,988.15</u>
D.—Investments:	
Bills Receivable	\$1,404,557.86
Bonds	1,074,271.00
Stocks	100,552.00
Real Estate and Improvements held as investments	2,202,002.31
Balance of Contracts for sale of real estate	59,475.00
	<u>4,840,858.17</u>

See note at foot of page 320
as to relation between endow-
ments and investments.

E.—Departmental accounts and other expenditures

carried forward as a charge against 1913-14.... 316,793.15

F.—Amounts due from the State of California under various appropriations

39,555.49

Sundry debtors

55,743.93

Suspense Account, Turner mortgage

47,000.00

Losses in Investments:

Montgomery Avenue bonds

21,999.00

Carried forward \$13,145,937.89

LIABILITIES

University of California (representing University property in general other than that held for investment purposes)

\$9,643,594.82

G.—Endowment Fund Accounts

5,522,088.87

H.—Fund Interest Accounts: Balances on hand of the income of endowments

35,444.30

J.—Donation Accounts: Unexpended balances of donations

133,333.23

K.—Balances on hand restricted to use for specific purposes

57,679.83

L.—Sundry Creditors

256,011.57

Permanent Building Fund

10,309.92

Losses and gains in Endowment Pool Investments (increase in the valuation of properties in which Endowment Pool moneys have been in-vested)

65,418.21

Carried forward \$15,723,880.75

BALANCE SHEET—SCHEDULES

325

<i>Brought forward</i>	\$13,145,937.89	<i>Brought forward</i>	\$15,723,880.75
W. A. McKowen defalcation	44,120.10		
Equipment:			
General	\$1,848,382.08		
Bancroft Library	250,005.00		
Revenue: Overdraft to date	2,098,387.08		
Cash:			
I. W. Hellman, Jr., Treasurer.....	232,769.75		
Cash in hands of departments de-			
posited with Treasurer after			
June 30, 1913	4,593.81		
Contingent Funds	20,600.00		
Certified Checks (accompanying			
bids)	22,632.75		
Wells, Fargo & Co., deposit ac-			
count	200.00		
	280,796.31		
	<u>\$15,723,880.75</u>		<u>\$15,723,880.75</u>

STATISTICS OF THE INFIRMARY

COMPILED BY THE UNIVERSITY PHYSICIAN

MEDICAL EXAMINATION OF INTRANTS, 1912-13

MEN

Number examined, 1173

Abdomen, abnormal	111	General development—	
Hernia	66	Excellent	16
R. kidney	1	Good	644
Liver, palpable	18	Fair	425
Relax	3	Poor	88
Rigid	2	Genitalia, abnormal	333
Spleen	23	Penis, abnormal	316
Chest, abnormal	276	Circumcision	287
Barrel	64	Foreskin, abnormally	
Flat	160	developed	1
Funnel	38	Short	3
Pigeon	14	Hypospadias	2
Ears, abnormal	358	Phimosis	23
Cerumen	251	Testes, abnormal	17
Chronic suppuration	24	Atrophy	1
Defective hearing	76	Left	8
Eczema of external ear	1	Right	7
Tubo tympanic catarrh	6	Undescended	1
Eyes—		Heart, abnormal	46
Hyperopia	187	Intermittent	4
Simple hyp. astigmatism	201	Irregular	25
Compound hyp. astigmatism	102	Enlarged	6
Myopia	67	Mitral regurgitation	11
Simple myopia astigmatism	29	Larynx, abnormal	2
Comp. myopia astigmatism	22	Lungs, abnormal	11
Mixed astigmatism	3	Lymph nodes, enlarged	265
Heterophoria	251	Mammary glands, supernumerary	88
Strabismus	14	Nutrition—	
Color blind	21	Thin	375
Feet—		Average	772
Longitudinal arches—		Obese	26
Low	342	Nose—	
Flat	393	Sep. spur	417
Anterior arches—		Crista	33
Low	647	Deviations septum	450
Flat	24	Chronic hypertrophies	170
Deformed	1		

MEDICAL EXAMINATION OF INTRANTS, 1912-13—Continued

MEN

Naso-pharynx, abnormal	314	Throat, abnormal—	
Adenoids	284	Tonsils—	
Chronic pharyngitis	30	Absent	16
Shoulders, abnormal	683	Buried	262
Round	683	Pathological	22
Skin, abnormal	722	Projecting	226
Acne	462	Thyroid, enlarged	14
Dry	4	Unvaccinated	200
Eczema	1	Varicocele	171
Pigmentation	1	Right	18
Ringworm	4	Left	163
Seborrhoea	250	Varicose veins	15
Teeth—		Vertebral column—	
Good	872	Lordosis	11
Fair	232	Kyphosis	11
Poor	48	Scoliosis	65
Neglected	14		
False	7		

HISTORY OF DISEASES PREVIOUS TO ENTERING COLLEGE

Adenitis, inguinal	4	Hernia, inguinal	59
Adenoids	1	Heart, abnormal	8
Anaemia	1	Influenza	28
Amygdalitis	225	Insomnia	2
Appendicitis	43	Jaundice, catarrhal	5
Birth palsy (atrophy of left pec-		Lumbago	1
toral muscle)	1	Mastoiditis	2
Bronchial asthma	2	Measles	996
Bronchitis	4	Meningitis, cerebro-spinal	3
Cartilage, floating semilunar	1	Mumps	610
Cellulitis	6	Neuralgia	1
Chancroids	1	Neuritis	1
Chicken-pox	543	Nephritis	4
Chorea	6	Neurasthenia	22
Constipation	72	Osteomyelitis, chronic	2
Diphtheria	99	Otitis media	39
Dysentery	3	Paralysis, facial	1
Enteritis, chronic	3	Pemphigus	1
Epilepsy	1	Pleurisy	33
Epistaxis	1	Pharyngitis, chronic	1
Erysipelas	3	Pneumonia	98
Fever, unknown	3	Peritonitis, local	1
Furunculosis	3	Rickets	1
Gastritis—		Rheumatism	56
Chronic	5	Scarlatina	145
Acute	1	Scarlet fever	41
Gonorrhoea	41	Sciatica	1
Haemorrhoids	4	Sebaceous cyst	1
Hammer-toe	7	Smallpox	39
Hay fever	1	Splenitis	1

MEDICAL EXAMINATION OF INTRANTS, 1912-13—*Continued*

MEN			
Syphilis	2	Bones, unclassified	1
Tinea barbae	1	Typhoid fever	125
Tuberculosis—		Varicose veins	7
Pulmonary haemorrhage	2	Varicocele	175
Spine	1	Varioloid	1
Hip	7	Whooping cough	595

HISTORY OF OPERATIONS PREVIOUS TO ENTERING COLLEGE

Abdomen, foreign body removed....	1	Kidney—	
Abscess of—		Nephrectomy	1
Alveolar	1	Other operations	2
Arm, operated for	2	Lacrimal gland, operation on	1
Unclassified	2	Leg—	
Adenectomy	3	Abscess, operation for	2
Adenoidectomy	99	Amputation	2
Appendectomy	40	Other operations	4
Arm, amputated	1	Mastoid, operation for	6
Cellulitis, finger	1	Neck—	
Circumcision	261	Operation on	1
Clavicle, ununited fracture—		Operation on abscess	1
operated for	1	Nose—	
Cheek, operated for cyst	1	Operation on	8
Cyst, sebaceous extension of	1	Septum deflected, operation for..	5
Ear, operated for abscess	2	Osteomyelitis, operation for	1
Empyema, operated for	2	Palate, operation for cleft	3
Ethmoid, operated on	1	Pleurisy, aspiration of chest	2
Fistula in ano, operated for	2	Scalp, operation on	1
Gastroenterostomy	1	Skull, operation, unclassified	1
Haemorrhoidectomy	2	Toes, amputation	2
Herniotomy	10	Tongue, operation on	1
Hip, operation for tuberculosis	6	Tonsillectomy	123
Hydrocele, operation for	3	Tumor, operation, unclassified	4
Inguinal Adenitis, op. for abscess	2	Varicocele, operation for	9
		Wrist, operation, unclassified	1

HISTORY OF INJURIES PREVIOUS TO ENTERING COLLEGE

Abdomen, str. muscles	4	Paralysis	2
Acromion, contusion of right	1	Forearm, fractured	3
Ankle, burned	1	Ulna dislocated	2
Dislocated	1	Back, contused	3
Fractured	3	Injury unclassified	1
Sprained	32	Sprained	3
Arm, burned	2	Brain, concussion of	1
Contused	7	Chest, contused	5
Dislocated	3	Clavicle, dislocated	3
Fractured	62	Fractured	26
Gunshot wounds of	1	Ear, contusion of	1
Lacerated	2	Elbow, contused	1

MEDICAL EXAMINATION OF INTRANTS, 1912-13—*Continued*

MEN

Dislocated	5	Leg, abraded	1
Fracture about	4	Burned	2
Eye, contused	2	Contused	4
Lacerated	1	Fractured	16
Femur, fractured	1	Gunshot wound of	1
Fibula, fractured	1	Lacerated	1
Finger, amputated	1	Lip, lacerated	2
Contused	2	Nipple, infected left	1
Fractured	5	Nose, contused	3
Gunshot wound of	1	Fractured	33
Lacerated	1	Lacerated	2
Foot, burn	1	Ribs, fractured	4
Gunshot wound of	3	Scalp wound	4
Punctured wound of	1	Scapula, fractured	1
Tumor of	1	Shoulder, contused	6
Hand, burn	1	Dislocated	5
Cellulitis	1	Fractured, about the	2
Fractured	2	Lacerated	1
Gunshot wound of	1	Sprained	3
Metacarpals, fractured	1	Skull, fractured	5
Metatarsal, dislocated	1	Testicle, congenital malformation	
Phalanx, fractured	2	(undescended testes)	1
Head, contused	7	Contusion of	4
Lacerated	3	Epididymitis	2
Hernia	10	Thumb, amputated	1
Hip, contused	2	Fractured	3
Sprained	1	Thigh, burn of	1
Jaw, fractured	2	Contusion of	1
Knee, dislocated	4	Thorax, concussion of	1
Gunshot wound of	1	Wrist, fracture about	9
Injury	1	Sprained	6
Lacerated	2		
Sprained	4	Miscellaneous—	
Synovitis	2	Burns, unclassified	3
Kidney, contused	2	Contusions, unclassified	1
		Sprains, unclassified	1

MEDICAL EXAMINATION OF INTRANTS, 1912-13

WOMEN

Number examined, 844

Abdomen, abnormal	163	Fair	336
Liver palpable	3	Poor	28
Right kidney—		Heart, abnormal	55
Moveable	43	Lungs, abnormal	6
Palpable	100	Lymph nodes, enlarged	463
Left kidney—		Menstrual disorders	279
Moveable	3	Naso-pharynx, abnormal	238
Palpable	12	Adenoids—	
Tender in R. U. Q.	1	Large	8
Spleen, palpable	1	Small	200
Chest, abnormal	214	Chronic pharyngitis	16
Flat	65	Uvula abnormal	4
Funnel	8	Nose, abnormal	471
Narrow	2	Spurs	226
Flaring at base	37	Deviations septum	175
Pigeon	18	Chronic hypertrophies	67
Prominent sternum	83	Chronic sinusitis	3
Depressed sternum	1	Nutrition—	
Ears, abnormal	194	Thin	324
Cerumen	174	Average	451
Chronic suppuration	12	Obese	69
Defective hearing	7	Skin—	
Tubo tympanic catarrh	1	Abnormal	109
Eyes—		Acne	326
Hyperopia	159	Teeth—	
Simple hyp. astigmatism ..	310	Good	380
Comp. hyp. astigmatism	92	Fair	281
Myopia	104	Poor	121
Simple myopia astigmatism..	20	Neglected	28
Comp. myopia astigmatism..	27	False	8
Heterophoria	244	Throat, abnormal	361
Strabismus	9	Tonsils—	
Color blind	1	Absent	8
Feet—		Buried	207
Longitudinal arches—		Projecting	137
Low	341	Pathological	8
Flat	150	Adhesions	1
Anterior arches—		Thyroid, enlarged	282
Low	205	Unvaccinated	163
General development—		Vertebral column, abnormal	266
Excellent	29	Lordosis	17
Good	451	Kyphosis	15
		Scoliosis	234

MEDICAL EXAMINATION OF INTRANTS, 1912-13—Continued

WOMEN

HISTORY OF DISEASES PREVIOUS TO ENTERING COLLEGE

Amygdalitis	297	Mastoiditis	4
Anaemia	2	Measles	798
Appendicitis	51	Meningitis	1
Asthma	4	Mumps	485
Blindness	1	Nephritis	3
Bronchitis	12	Neuralgia	2
Chicken-pox	555	Neurasthenia	86
Cholera infantum	1	Otitis media	90
Chorea	8	Peritonitis	2
Colitis	5	Pleurisy	48
Constipation	56	Pneumonia	98
Cystitis	1	Poliomylitis anterior	1
Deafness	1	Psoriasis	2
Dementia	1	Rheumatism	78
Diphtheria	88	Rhinitis, chronic	2
Erysipelas	4	Scabies	2
Floating cartilage (knee)	2	Scarlet fever	169
Gastritis	6	Smallpox	20
Hay fever	1	Tape worm	1
Headaches, chronic	14	Trachoma	1
Heart trouble	7	Tuberculosis—	
Herpes zoster	2	Lung	2
Influenza	24	Ankle	1
Intussuception	1	Typhoid fever	106
Jaundice	4	Varicose veins	2
Malaria	106	Whooping cough	610

HISTORY OF OPERATIONS PREVIOUS TO ENTERING COLLEGE

Abscess of—		Vaginal	1
Hand	5	Perinaeum	1
Jaw	2	Curettage	8
Leg	1	Haemorrhoids	4
Unknown	1	Hernia	3
Adenoids and tonsils	137	Hip (congenital dislocation)	1
Adenitis, cervical	10	Kidney	1
Ankle (tubercle)	1	Knee	1
Appendectomy	30	Leg	1
Arm—		Mastoid	4
Injury	2	Nose	20
Tumor	1	Polyps	4
Eyes	8	Septum	2
Foot	7	Rib resected	2
Needle in	1	Toe joints	1
Gynaecological	3	Varicose veins	1
Uterine (abdominal)	6		

MEDICAL EXAMINATION OF INTRANTS, 1912-13—*Continued*
WOMEN

HISTORY OF INJURIES PREVIOUS TO ENTERING COLLEGE

Abdomen, injured	1	Hand, fractured	2
Ankle, Fractured	4	Hip, congenital dislocation	1
Sprained	11	Dislocated	2
Dislocated	1	Fractured	1
Injured	1	Injured	1
Arm, fractured	23	Knee, dislocated	3
Sprained	1	Fractured	1
Injured	3	Injured	2
Back, injured	20	Sprains	2
Burns	7	Leg (birth trauma)	1
Clavicle, fractured	10	Fractured	1
Injured	1	Injured	1
Coccyx, Fractured	3	Nail wound	1
Injured	1	Ribs, fractured	2
Dog bite	1	Injured	2
Elbow, dislocated	5	Shoulder, crushed	1
Fractured	7	Dislocated	4
Injured	4	Fractured	1
Falls	13	Skull, fractured	1
Finger, fractured	5	Wrist, dislocated	1
Foot, crushed	1	Fractured	19
Dislocated	1	Sprains	2

CASES BY CLASSES, 1912-13—MEN

Diseases (International classification)	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
I. GENERAL DISEASES:										
(International classification)										
1. Typhoid fever	46	42	31	70	32 3	224				
Anti-typhoid inoculation	4		3	3		10				
4. Malaria			1	1	2	4				
6. Measles	1					1				
9. Diphtheria			1			1				
10. Influenza			1			1				
19. Other epidemic diseases—										
Chicken-pox	1	2	1		1	5				
Mumps	10	3	3	3		19				
Vaccinia	198	61	40	47	60 17	423				
28. Tuberculosis of lungs					2	2				
32. Pott's disease		1				1				
34. Tuberculosis of other organs	2				1	3				
36. Rickets—Curvature of spine					1	1				
37. Syphilis	1					1				
38. Gonococcus infection	5	5	3	1		14				
46. Other tumors—										
Benign tumor			1			1				
Cyst—										
Dermoid					1	1				
Eyelid					1	1				
Head				1		1				
Neck			1			1				
Retention (lip)		1				1				
Sebaceous	2		2			4				
Wen (scalp)					1	1				
47. Acute articular rheumatism										
48. Chronic rheumatism—										
a. Arthritis deformans		1				1				
b. Rheumatism, chronic articular	1	1				2				

CASES BY CLASSES, 1912-13—MEN—Continued

	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
II. DISEASES OF THE NERVOUS SYSTEM:										
66. Paralysis without specified cause										
Facial	1	...	...	2	3	1	...	...	2	3
73. Neuralgia and Neuritis—										
Neuralgia of—										
Facial	4	1	2	4	2	...	...	...	...	...
Intercostal	2	3	1	...	13	...	...	...	...	...
Miscellaneous .....	...	...	1	1	3	...	...	...	...	...
Neuritis, Facial .....	...	...	...	1	1	...	1	...	...	1
74. Other diseases of the nervous system—										
Angiospastic oedema	1	...	1	...	2	...	...	1	...	1
Neurasthenia	12	4	1	3	23	3	...	...	...	3
Spasms, habit .....	...	...	...	...	1	...	...	...	...	...
Vertigo .....	...	...	...	...	...	1	...	...	...	1
75. Diseases of the eyes and annexa										
a. Conjunctivitis, acute	46	35	25	13	2	3	...	1	...	5
Conjunctivitis, chronic .....	...	...	1	...	1	...	...	...	...	...
c. Astigmatism	9	8	3	5	3	1	...	...	...	...
Blepharitis	7	1	2	2	1	...	...	...	1	1
Cornical ulcer	1	...	...	...	1	1	...	...	...	1
Hordeolum	12	13	4	7	3	1	...	...	...	1
Foreign body	4	2	3	3	3	15	...	...	...	...
Eye strain	4	8	7	4	2	...	...	...	...	...
Miscellaneous	7	2	1	4	5	1	...	...	...	...
76. Diseases of the ears—										
Cerumen, accum. of	20	13	16	8	10	...	...	...	...	...
Eustachian salpingitis	10	4	4	4	5	...	...	...	...	...
Myringitis .....	...	2	...	...	...	...	2	...	...	2
Otitis externa	1	...	1	1	...	...	...	...	...	...
Otitis media	8	1	2	2	3	...	2	1	...	4
Miscellaneous .....	...	1	1	2	2	...	...	...	...	...

CASES BY CLASSES, 1912-13—MEN—Continued

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
III. DISEASES OF THE CIRCULATORY SYSTEM:										
77. Pericarditis	1	---	---	---	1	---	---	---	---	---
79. Organic diseases of the heart—	---	---	---	---	---	---	---	---	---	---
<i>a.</i> Chronic cardiac	---	1	---	---	1	---	---	---	---	---
83. Diseases of the veins—	---	---	---	---	---	---	---	---	---	---
Haemorrhoids	4	2	2	3	14	---	---	---	---	---
Varicose	5	1	---	1	8	---	---	---	---	---
84. Diseases of the lymphatic	---	---	---	---	---	---	---	---	---	---
System—	---	---	---	---	---	---	---	---	---	---
Lymphadenitis	1	---	---	---	1	---	---	---	---	---
Lymphangitis	4	1	---	---	5	1	---	1	---	3
85. Haemorrhage—	---	---	---	---	---	---	---	---	---	---
Epistaxis	3	2	4	2	12	---	---	---	---	---
Haemorrhage	---	1	---	---	1	1	---	---	---	1
Tachycardia	1	1	---	---	2	---	1	---	---	1
IV. DISEASES OF THE RESPIRATORY SYSTEM:										
86. Diseases of the nasal fossae—	---	---	---	---	---	---	---	---	---	---
Adenoids	---	1	---	---	1	---	---	---	---	---
Deviation of septum	2	1	---	1	4	---	---	---	---	---
Rhinitis, acute	261	225	155	73	894	---	5	---	---	5
Rhinitis, chronic	1	---	---	---	1	---	---	---	---	---
Septum spur	1	---	1	---	2	---	---	---	---	---
Ulcer, nose	3	1	6	2	14	1	---	---	---	1
Miscellaneous	6	1	1	2	12	---	---	---	---	---
87. Diseases of the larynx—	---	---	---	---	---	---	---	---	---	---
Laryngitis	34	29	15	32	124	1	---	1	---	2
88. Diseases of the thyroid body—	---	---	---	---	---	---	---	---	---	---
Adenitis	3	2	1	3	10	---	1	---	---	1
Gland of abdominal wall	---	---	---	1	1	---	---	---	---	---

CASES BY CLASSES, 1912-13—MEN—Continued

Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS							
	1916	1915	1914	1913	Grad. Spec.	Total	1916	1915	1914	1913	Grad. Spec.	Total		
89. Bronchitis, acute—														
Bronchitis	40	22	17	15	15	1	110							
Tracheitis	44	21	24	8	7	...	104	7	...	2	1	4	1	15
90. Bronchitis, chronic								3	3	4	1	1	...	12
92. Pneumonia—								...	...	...	...	...	...	...
Pneumonia, lobar								1	...	...	...	...	...	1
93. Pleurisy—														
Pleurisy, acute fibrinous	1	1	1	...	2	...	5	2	...	...	...	...	...	2
96. Asthma	5	...	...	...	1	...	6	4	...	...	2	...	...	6
98. Other diseases of the respiratory system—														
Haemoptysis	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Hay fever	1	2	...	...	...	...	3	...	...	...	...	...	...	...
V. DISEASES OF THE DIGESTIVE SYSTEM:														
99. Diseases of the mouth and annexa—														
a. Abscess, alveolar	2	3	3	2	2	...	12	...	...	...	...	...	...	...
Caries, tooth	1	2	...	...	...	...	3	...	...	...	...	...	...	...
Gingivitis	2	...	1	...	...	...	3	...	...	...	...	...	...	...
Pyorrhoea alveolaris .....	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Miscellaneous	6	5	...	2	1	...	14	...	...	...	...	...	...	...
b. Stomatitis	5	6	3	1	2	...	17	...	...	...	...	...	...	...
Ulcers	2	1	2	2	1	...	8	...	...	...	...	...	...	...
Miscellaneous	2	...	1	1	...	...	4	...	...	...	...	...	...	...
100. Diseases of the pharynx—														
Adenoids, operation for .....	...	...	...	...	...	...	...	2	2	...	...	...	...	4
Amygdalitis, acute	108	73	46	54	20	1	302	8	7	5	6	1	...	27
Amygdalitis, chronic	1	...	1	...	...	...	2	1	...	...	1	...	...	2
Amygdalitis, operation for .....	...	...	...	...	...	...	...	9	4	3	6	2	...	24
Hypertrophy of tonsils	1	...	...	...	...	...	1	1	...	...	1	...	...	2
Elongation of uvula	1	...	1	...	...	...	2	...	...	...	...	...	...	...

CASES BY CLASSES, 1912-13—MEN—Continued

		DISPENSARY PATIENTS						HOUSE PATIENTS					
		1916	1915	1914	1913	Grad. Spec.	Total	1916	1915	1914	1913	Grad. Spec.	Total
115.	Other diseases of the liver—												
	Biliousness	11	6	5	6	...	1	29					
VI. NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA:													
119.	Nephritis, acute	2	...	1	1	...	...	4					
122.	Other disease of the kidney and annexa—												
	Pyelitis .....	...	...	...	1	...	...	1					
124.	Diseases of the bladder—												
	Cystitis, acute .....	...	...	...	1	...	...	1					
125.	Diseases of the urethra—												
	Urethritis	5	2	3	2	1	...	13					
127.	Non-veneral diseases of the male genital organs—												
	Balanoposthitis	2	1	1	...	...	...	4					
	Circumcision .....	...	...	...	...	...	...	...
	Epididymitis .....	...	1	3	...	...	...	4					
	Orchitis, acute .....	...	...	...	...	1	...	1					
	Seminal emissions	1	...	1	...	...	...	2					
	Spermatorrhoea .....	...	...	...	1	...	...	1					
	Miscellaneous .....	...	1	1	1	...	...	3					
133.	Non-puerperal diseases of the breast—												
	Tumor, breast	1	...	...	...	...	...	1					
VIII. DISEASES OF THE SKIN:													
143.	Furuncle—												
	Arm	4	...	3	2	2	...	11					
	Ear region	6	2	2	4	...	...	14					
	Face	24	8	8	8	4	...	52					
	Finger .....	...	...	...	...	1	...	1					
	Foot .....	...	1	...	...	...	...	1					

HOUSE PATIENTS

Diseases	1916	1915	1914	1913	Grad.	Spec.	Total
Head	4	2	5	2	.....	.....	13
Leg	3	2	2	.....	.....	.....	10
Neck	36	20	22	11	9	.....	98
Miscellaneous	24	3	13	9	1	.....	50
Carbuncle	2	1	.....	.....	.....	.....	3

144. Acute abscess—

Abscess of

Arm .....	.....	.....	.....	.....	.....	.....	.....
Ear	1	1	.....	.....	.....	.....	2
Face	1	2	1	2	.....	.....	6
Finger .....	.....	3	2	3	.....	.....	8
Foot .....	.....	3	2	1	3	.....	9
Hand .....	.....	.....	1	.....	.....	.....	1
Leg .....	.....	1	.....	.....	.....	.....	1
Neck	1	.....	.....	1	.....	.....	2
Miscellaneous	6	3	.....	1	1	.....	11

Cellulitis of

Arm	1	.....	.....	.....	.....	.....	1
Face	5	4	2	1	4	.....	16
Finger	6	1	3	2	.....	1	13
Foot	12	4	3	2	.....	1	22
Hand	1	2	1	1	1	1	7
Knee	1	.....	.....	.....	.....	.....	1
Leg	1	1	.....	.....	.....	.....	2
Buttock .....	.....	2	.....	.....	.....	.....	2
Neck	2	.....	.....	1	.....	.....	3
Miscellaneous	3	4	1	1	1	.....	10

145. Other diseases of the skin and

annexa—

a. Trichophytosis	56	11	11	2	3	.....	83
b. Scabies	3	3	1	.....	1	.....	8

DISPENSARY PATIENTS

Diseases	1916	1915	1914	1913	Grad.	Spec.	Total
Head	4	2	5	2	.....	.....	13
Leg	3	2	2	.....	.....	.....	10
Neck	36	20	22	11	9	.....	98
Miscellaneous	24	3	13	9	1	.....	50
Carbuncle	2	1	.....	.....	.....	.....	3

144. Acute abscess—

Abscess of

Arm .....	.....	.....	.....	.....	.....	.....	.....
Ear	1	1	.....	.....	.....	.....	2
Face	1	2	1	2	.....	.....	6
Finger .....	.....	3	2	3	.....	.....	8
Foot .....	.....	3	2	1	3	.....	9
Hand .....	.....	.....	1	.....	.....	.....	1
Leg .....	.....	1	.....	.....	.....	.....	1
Neck	1	.....	.....	1	.....	.....	2
Miscellaneous	6	3	.....	1	1	.....	11

Cellulitis of

Arm	1	.....	.....	.....	.....	.....	1
Face	5	4	2	1	4	.....	16
Finger	6	1	3	2	.....	1	13
Foot	12	4	3	2	.....	1	22
Hand	1	2	1	1	1	1	7
Knee	1	.....	.....	.....	.....	.....	1
Leg	1	1	.....	.....	.....	.....	2
Buttock .....	.....	2	.....	.....	.....	.....	2
Neck	2	.....	.....	1	.....	.....	3
Miscellaneous	3	4	1	1	1	.....	10

145. Other diseases of the skin and

annexa—

a. Trichophytosis	56	11	11	2	3	.....	83
b. Scabies	3	3	1	.....	1	.....	8

CASES BY CLASSES, 1912-13—MEN—Continued

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
c. Other diseases of the skin—										
Acne	12	5	3	2	1	2	25			
Alopecia areta	3	...	1	1	...	...	5			
Clavus	19	3	5	1	...	4	32			
Comedo	3	...	...	...	...	...	3			
Dermatitis exfoliativa	1	...	...	...	...	...	1			
Dermatitis traumatica	2	...	...	...	...	...	2			
Dermatitis venenata	45	36	20	17	20	2	140			5
Dermatitis intertigo	1	...	...	...	...	...	2	1	2	
Eczema—										
Arms .....	...	...	1	...	...	...	1			
Buttock .....	...	...	1	...	...	...	1			
Ear	2	3	1	...	1	...	7			
Face	4	...	3	3	...	...	10			
Feet	8	8	4	4	1	...	25			
Hands .....	...	1	1	...	...	...	2			
Legs	3	...	...	1	...	...	4			
Miscellaneous	10	7	2	2	6	1	28			
Erythema multiforme	1	...	...	1	1	...	3			
Erythema simplex	1	...	...	...	...	...	1			
Fissure of skin	2	...	1	1	...	...	4			
Herpes	9	3	7	4	1	...	24			
Hyperidrosis .....	...	...	...	1	1	...	2			
Impetigo .....	...	4	2	2	1	...	9			
Impetigo contagiosa	8	2	...	5	1	...	16	1		1
Callositas .....	...	...	1	1	...	...	2			
Fibroma .....	...	1	...	...	1	...	2			
Malaria .....	...	1	...	...	...	...	1			
Parasitic diseases—										
Phtheiritiasis	5	5	2	1	1	...	14			
Pityriasis rosea	1	...	...	...	...	...	1			
Pityriasis simplex .....	...	2	...	...	...	...	2			

Diseases	DISPENSARY PATIENTS					Total	HOUSE PATIENTS					
	1916	1915	1914	1913	Grad. Spec.		1916	1915	1914	1913	Grad. Spec.	Total
Pruritis ani	1	1	1	---	1	4	---	---	---	---	---	---
Psoriasis	2	1	---	---	---	3	---	---	---	---	---	---
Seborrhoea	3	1	3	1	4	12	---	---	---	---	---	---
Urticaria	11	2	5	4	5	29	---	---	---	---	---	---
Wart—												
Face	1	1	---	---	---	2	---	---	---	---	---	---
Foot	10	12	16	13	3	54	---	---	---	---	---	---
Hand	12	10	5	---	---	28	---	---	---	---	---	---
Miscellaneous	9	4	7	---	2	23	---	---	---	---	---	---
Zoster	3	2	---	---	---	5	---	---	---	---	---	---
Nails—												
Ingrowing nail	6	2	2	---	---	11	---	---	---	---	---	---
Onychoma	---	---	1	---	---	1	---	---	---	---	---	---
Paronychia	2	2	1	---	---	5	---	---	---	---	---	---
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION:												
146. Diseases of the bones—												
Frontal sinusitis	16	9	8	4	3	41	1	1	1	1	---	4
Pteriosis	---	---	---	1	---	1	---	---	---	---	---	---
Miscellaneous	---	---	---	---	1	1	---	---	---	---	---	---
147. Diseases of the joints—												
Arthritis	1	---	1	2	---	4	1	---	---	---	---	1
Synovitis	14	2	1	---	1	18	1	---	---	---	---	1
Traumatics	---	1	---	---	---	1	---	---	---	---	---	---
Miscellaneous	---	---	1	---	1	2	---	---	---	---	---	---
149. Other diseases of the organs of locomotion—												
Bursitis	3	---	1	---	---	4	---	---	---	---	---	---
Dupuytren's contraction	---	---	---	1	---	1	---	---	---	1	---	1
Hallux valgus	---	1	---	---	---	1	---	---	---	---	---	---
Ganglion	1	1	---	1	---	3	---	---	---	---	---	---

CASES BY CLASSES, 1912-13—MEN—Continued

	DISPENSARY PATIENTS							HOUSE PATIENTS						
	1916	1915	1914	1913	Grad.	Spec.	Total	1916	1915	1914	1913	Grad.	Spec.	Total
Diseases														
Myositis	24	8	10	7	6	---	55	---	1	---	---	---	---	1
Pes planus	3	---	1	---	1	---	5	---	---	---	---	---	---	---
Rheumatism, lumbar	---	---	---	---	1	---	1	---	---	---	---	---	---	---
Rheumatism, muscular	---	---	---	1	1	---	2	---	---	---	---	---	---	---
Tenosynovitis	9	4	---	3	1	---	17	---	---	---	---	---	---	---
150. Congenital malformations—														
Naevus	1	---	---	---	---	---	1	---	---	---	---	---	---	---
164. Poisoning by food	1	3	1	---	1	---	6	---	1	---	---	---	---	1
165. a. Other acute poisonings—														
Insect bite	3	1	---	---	---	---	4	---	---	---	---	---	---	---
b. Drug poisonings—														
Anti-typhoid	---	---	---	---	1	---	1	---	---	---	---	---	---	---
Hydrogen stilphate	1	---	---	---	---	---	1	---	---	---	---	---	---	---
167. Burns—														
Arm	1	2	---	---	---	---	3	---	---	---	---	---	---	---
Back	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Eyes	---	2	---	---	1	---	3	---	---	---	1	---	---	1
Face	---	1	---	---	1	---	2	---	---	---	1	---	---	1
Finger	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Hand	---	2	---	---	2	1	5	---	---	---	---	---	---	---
Miscellaneous	1	2	---	1	1	1	6	---	---	---	---	---	---	---
Sunburn	---	1	---	---	---	---	1	---	---	---	---	---	---	---
171. Traumatism by cutting or piercing instruments—														
Ankle	---	2	---	---	---	---	2	---	1	---	---	---	---	1
Arm	1	1	2	---	---	---	4	---	---	---	---	---	---	---
Elbow	1	---	1	---	1	---	3	---	---	---	---	---	---	---
Face	10	6	6	4	2	---	28	---	---	---	---	---	---	---
Finger	13	9	8	4	7	---	41	---	---	---	---	---	---	---
Foot	2	2	2	4	1	---	11	---	---	---	---	---	---	---
Hand	4	3	6	5	2	---	20	---	---	---	---	---	---	---

STATISTICS OF THE INFIRMARY

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Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS							
	1916	1915	1914	1913	Grad.	Spec.	Total	1916	1915	1914	1913	Grad.	Spec.	Total
Head	6	...	...	...	2	...	8	...	...	...	...	...	...	...
Leg	1	3	1	...	...	...	5	...	...	...	...	...	...	...
Miscellaneous	4	2	...	2	4	...	12	...	...	...	...	...	...	...
172. Traumatism by fall	2	1	...	...	...	...	3	...	...	...	...	...	...	...
185. <i>a.</i> Dislocations—														
Cartilage	2	1	...	...	1	...	4	...	2	...	...	...	...	2
Finger	1	1	2	1	...	...	5	...	...	...	...	...	...	...
Toes .....	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Ulna .....	...	...	...	...	...	...	...	...	1	...	...	...	...	1
<i>b.</i> Sprains—														
Ankle	19	17	6	7	2	...	51	2	...	1	...	...	...	3
Arm	3	3	...	...	...	...	6	1	...	...	...	...	...	1
Back	3	...	...	2	...	...	5	...	...	...	...	...	...	...
Finger	8	9	2	4	1	...	24	...	...	...	...	...	...	...
Foot	7	7	5	6	3	...	28	...	...	...	...	...	...	...
Hand	2	...	...	...	...	1	3	...	...	...	...	...	...	...
Knee	1	1	1	...	...	...	3	...	...	...	1	...	...	1
Shoulder	1	1	...	...	...	...	2	...	...	...	...	...	...	...
Wrist	10	2	2	1	...	...	15	...	...	...	...	...	...	...
Miscellaneous	5	2	3	3	...	...	13	...	...	...	...	...	...	...
<i>c.</i> Fractures—														
Ankle .....	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Clavicle	1	...	...	1	...	...	2	...	...	1	...	...	...	1
Elbow	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Fibula	1	...	1	...	...	...	2	...	...	...	...	...	...	...
Finger	1	1	...	...	...	...	2	...	...	...	...	...	...	...
Foot .....	...	2	1	...	...	...	3	...	...	...	...	...	...	...
Metacarpus .....	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Nose	3	...	1	1	1	...	6	...	...	...	...	...	...	...
Ribs .....	...	2	...	1	...	...	3	...	...	...	...	...	...	...
Scapula .....	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Tibia .....	...	...	...	...	...	...	...	...	1	...	...	...	...	1

CASES BY CLASSES, 1912-13--MEN--Continued

	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
Diseases										
186. Other external violence—										
I. Organs and special structures										
Strain of muscle of										
Abdomen	1	1	1	1	4	1	1	1	1	4
Ankle	1	1	1	1	4	1	1	1	1	4
Arm	1	1	1	1	4	1	1	1	1	4
Back	2	2	2	2	8	2	2	2	2	8
Chest	1	1	1	1	4	1	1	1	1	4
Foot	1	1	1	1	4	1	1	1	1	4
Knee	1	1	1	1	4	1	1	1	1	4
Leg	1	1	1	1	4	1	1	1	1	4
Miscellaneous	5	3	2	1	11	5	3	2	1	11
Concussion—brain	1	1	1	1	4	1	1	1	1	4
II. Regions—										
Contusion and abrasion of										
Abdomen	1	1	1	1	4	1	1	1	1	4
Ankle	4	2	4	4	14	4	2	4	4	14
Arm	4	4	4	4	16	4	4	4	4	16
Axilla	1	1	1	1	4	1	1	1	1	4
Back	2	2	2	2	8	2	2	2	2	8
Chest	2	3	1	2	8	2	3	1	2	8
Ear	1	1	1	1	4	1	1	1	1	4
Elbow	5	9	1	1	16	5	9	1	1	16
Eye	1	3	2	4	10	1	3	2	4	10
Face	17	8	7	1	33	17	8	7	1	33
Feet	33	19	9	13	74	33	19	9	13	74
Hand	15	22	15	14	66	15	22	15	14	66
Head	1	6	1	1	9	1	6	1	1	9
Knee	12	6	3	2	23	12	6	3	2	23
Leg	4	5	1	1	11	4	5	1	1	11
Rib	1	1	1	1	4	1	1	1	1	4

STATISTICS OF THE INFIRMARY

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Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS					
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total	
Shoulder	...	2	...	1	...	3	...	...	...	...	...
Thigh	1	...	1	2	1	5	...	...	...	...	...
Miscellaneous	16	7	4	10	3 1	41	...	...	...	...	...
XIV. ILL-DEFINED DISEASES:											
189. Unclassified or ill-defined—											
a. Diseases not specified—											
Headache	2	3	...	3	2	10	...	...	...	...	...
Insomnia	1	...	1	...	...	2	...	...	...	...	...
Unknown	3	2	1	...	2 1	9	...	...	...	...	...
Miscellaneous	3	...	1	3	...	7	...	...	...	...	...
b. No disease—											
Hygiene advice	3	...	...	...	2	5	...	...	...	...	...
Apprehension	...	1	...	...	1	2	...	...	...	...	...
No disease	...	1	...	1	...	2	...	...	...	...	...
Operation wound	...	1	1	...	...	2	...	...	...	1	1
Normal	3	3	1	3	3 1	14	...	...	...	...	...

CASES BY CLASSES, 1912-13—WOMEN

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
I. GENERAL DISEASES:										
(International classification)										
1. Typhoid fever .....	...	...	...	...	...	...	...	...	1	1
Anti-typhoid inoculation	1	2	5	5	2	...	...	...	...	...
9. Diphtheria .....	...	...	...	1	...	...	...	...	1	...
19. Other epidemic diseases—	...	...	...	...	...	...	...	...	...	...
Chicken-pox	2	...	...	...	...	...	...	...	...	...
Mumps .....	...	2	1	...	1	...	...	...	...	...
Vaccinia	166	54	36	27	50	31	364	...	...	...
28. Tuberculosis of the lungs .....	...	...	...	...	...	...	...	...	...	...
38. Gonococcus infection .....	...	...	1	...	...	...	...	...	...	...
46. Other tumors—	...	...	...	...	...	...	...	1	...	...
Cyst—	...	...	...	...	...	...	...	...	...	...
Eye	1	...	...	...	...	...	...	...	...	...
Finger .....	...	...	...	...	3	...	...	...	...	...
Head	1	...	...	...	...	...	...	...	...	...
Toe .....	...	...	...	...	1	...	...	...	1	...
Miscellaneous .....	...	...	...	...	1	...	...	...	...	...
47. Acute articular rheumatism	2	...	...	...	2	...	...	...	1	...
54. Anaemia, simple .....	...	1	...	1	1	...	...	...	...	...
55. Other general diseases—	...	...	...	...	...	...	...	...	...	...
Obesity	1	...	...	...	...	...	...	...	...	...
II. DISEASES OF THE NERVOUS SYSTEM:										
73. Neuralgia and neuritis—	...	...	...	...	...	...	...	...	...	...
Hysteria	1	...	1	...	1	...	2	...	...	2
Neuralgia of	...	...	...	...	...	...	...	...	...	...
Facial .....	...	...	1	...	...	...	...	...	...	...
Intercostal	1	...	1	2	1	...	...	...	1	...
Miscellaneous	8	3	4	3	3	...	...	...	...	...
Neuritis	2	4	...	2	2	...	...	...	...	...

CASES BY CLASSES, 1912-13—WOMEN—Continued

Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS					
	1916	1915	1914	1913	Grad. Spec.	Total	1916	1915	1914	1913	Grad. Spec.	Total
74. Other diseases of the nervous system—												
Angiospastic oedema .....	...	...	1	...	...	1	...	...	...	...	...	...
Neurasthenia	14	8	7	9	6	2	46	...	...	...	1	1
Neurosis .....	...	2	1	...	1	...	4	...	...	...	...	...
Syncope	1	...	...	...	...	...	1	...	...	...	...	...
Vertigo	1	...	1	...	...	...	2	...	...	...	...	...
75. Diseases of eyes and annexa—												
a. Conjunctivitis, acute	13	11	4	7	6	1	42	1	1	...	1	4
c. Astigmatism	2	3	...	2	1	...	8	...	...	...	...	...
Blepharitis	6	...	...	4	2	...	12	...	...	...	...	...
Exophoria .....	...	2	3	1	...	...	6	...	...	...	...	...
Eye strain	8	6	1	2	1	1	19	...	...	...	...	...
Foreign body .....	...	1	2	...	...	...	3	...	...	...	...	...
Hordeolum	3	3	3	1	2	...	12	...	...	...	...	...
Miscellaneous .....	...	3	1	...	1	...	5	...	...	...	...	...
76. Diseases of the ears—												
Cerumen, accum. of	27	10	3	7	9	1	57	...	...	...	...	...
Eustachian salpingitis	5	1	...	...	...	...	6	...	...	...	...	...
Otitis externa .....	...	1	...	...	...	...	1	...	1	...	...	1
Otitis media	2	3	3	...	2	1	11	2	2	1	1	6
Myringitis .....	...	1	...	...	...	...	1	...	...	...	1	1
DISEASES OF THE CIRCULATORY SYSTEM:												
79. Organic diseases of the heart—												
Arrhythmia	1	...	1	...	...	1	3	...	...	...	...	...
Dilation, chronic	1	1	...	...	...	...	2	...	...	...	...	...
Myocarditis .....	...	1	...	...	...	...	1	...	...	...	...	...
Valvular, chronic cardiac	1	...	...	...	2	...	3	...	...	...	1	1
80. Angina pectoris .....	...	3	...	...	...	...	3	...	...	...	...	...

		DISPENSARY PATIENTS						HOUSE PATIENTS					
Diseases		1916	1915	1914	1913	Grad. Spec.	Total	1916	1915	1914	1913	Grad. Spec.	Total
98. Other diseases of the respiratory system—													
	Hay fever	1	...	...	...	...	1	...	...	...	...	...	...
V. DISEASES OF THE DIGESTIVE SYSTEM:													
99. Diseases of the mouth and annexa—													
a. Avulsion	1	...	...	...	...	...	1	...	...	...	...	...	...
Caries	3	1	1	2	...	...	7	...	...	...	...	...	...
Gingivitis	1	1	...	...	...	...	2	...	...	...	...	...	...
Miscellaneous	1	1	1	1	...	...	4	...	...	...	...	...	...
U'eer, gums .....	...	...	1	...	...	...	1	...	...	...	...	...	...
b. Stomatitis	1	2	2	6	3	1	15	...	...	...	...	...	...
100. Diseases of the pharynx—													
Abscess, tonsil .....	...	...	...	1	...	...	1	2	...	...	1	...	3
Amygdalitis, acute	44	33	16	19	11	3	126	7	6	2	1	...	16
Amygdalitis, chronic	1	...	...	...	1	...	2	...	...	1	...	...	1
Amygdalitis, follic.	2	...	1	...	...	...	3	3	...	...	2	...	7
Amygdalitis, operation for .....	...	...	...	...	...	...	...	3	4	2	...	...	9
Adenoids, operation for .....	...	...	...	...	...	...	...	...	1	1	...	...	2
Hypertrophy of tonsil	1	1	1	...	1	...	4	...	...	...	...	...	...
Pharyngitis, acute	130	107	88	65	45	12	447	2	4	2	1	...	10
102. Ulcers of the stomach .....	...	...	1	...	...	...	1	...	...	...	1	...	1
103. Other diseases of the stomach—													
Fermentation, gastric	7	10	2	3	...	1	23	...	...	...	...	...	...
Gastritis	2	1	1	1	1	...	6	...	...	...	...	...	...
Hyperchlorhydria .....	...	...	3	...	...	...	3	...	1	...	...	...	1
Nervous dyspepsia .....	...	2	...	...	...	...	2	...	...	...	...	...	...
105. Diarrhoea and enteritis—													
Colitis	2	...	3	...	2	...	7	2	...	...	1	...	3
Fermentation, intestinal .....	...	1	...	1	...	...	2	...	...	...	...	...	...

CASES BY CLASSES, 1912-13—WOMEN—Continued

Diseases	DISPENSARY PATIENTS							HOUSE PATIENTS						
	1916	1915	1914	1913	Grad.	Spec.	Total	1916	1915	1914	1913	Grad.	Spec.	Total
Gastroduodenitis	10	11	2	1	1	2	27	1	---	1	---	---	1	3
Gastroenteritis	2	1	---	3	1	---	7	---	---	---	---	---	---	---
Enteritis	10	3	1	1	2	1	18	2	---	---	---	---	---	2
107. Intestinal parasites—														
Oxyuris vermicularis	---	---	1	---	---	---	1	---	---	---	---	---	---	---
108. Appendicitis, acute	---	---	---	---	---	---	---	1	1	---	1	---	---	3
109. Hernia—														
Inguinal hernia	1	---	---	---	---	---	1	---	---	---	---	---	---	---
110. Diseases of the intestines—														
Auto-intoxication	---	---	1	---	---	---	1	---	---	---	---	---	---	---
Constipation, acute	21	26	19	14	9	5	94	1	---	---	---	---	---	1
Constipation, chronic	---	---	1	1	1	---	3	---	---	---	---	---	---	---
115. Other diseases of the liver—														
Adhesion of peritoneum	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Cholecystitis	---	---	---	1	---	1	2	---	---	---	---	---	---	---
Functional derangement	4	3	2	4	1	2	16	---	---	---	---	---	---	---
Perihepatitis	---	1	---	---	---	---	1	---	---	---	---	---	---	---
VI. NON-VENEREAL DISEASES OF THE														
GENITO-URINARY SYSTEM AND														
ANNEXA:														
119. Nephritis, acute	---	---	---	---	---	1	1	---	---	---	---	---	---	---
124. Diseases of the bladder—														
Cystitis	---	---	---	---	1	1	2	---	---	---	1	---	---	1
125. Diseases of the urethra—														
Urethritis	---	---	---	---	---	---	1	---	---	---	---	---	---	---
128. Uterine haemorrhage (Non- puerperal)—														
Menorrhagia	5	1	2	1	---	---	9	1	---	---	---	---	---	1
Metrorrhagia	5	---	---	---	---	---	5	3	---	---	---	---	---	3
129. Uterine tumor (Non-cancerous)														
Myoma, rectus	---	---	---	1	---	---	1	---	---	---	---	---	---	---

STATISTICS OF THE INFIRMARY

351

DISPENSARY PATIENTS								HOUSE PATIENTS							
Diseases	1916	1915	1914	1913	Grad.	Spec.	Total	1916	1915	1914	1913	Grad.	Spec.	Total	
130. Other diseases of the uterus—															
Amenorrhoea	14	6	3	5	...	2	30	...	...	...	...	...	...	...
Dysmenorrhoea	23	16	11	7	6	3	66	...	...	...	...	...	...	...
Leucorrhoea	2	3	1	...	...	...	6	...	...	...	...	...	...	...
Displacement of uterus .....	...	...	1	...	...	...	1	...	...	...	...	...	...	...
Infantile uterus .....	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Endometritis .....	...	...	...	...	...	...	...	1	...	...	...	...	...	1
132. Salpingitis and other diseases of the female genital organs															
Cystocele—fibroid uterus .....	...	...	...	...	1	...	1	...	...	...	...	...	...	...
VII. THE PUERPERAL STATE:															
134. Accidents of pregnancy—															
Pregnancy .....	...	...	...	...	...	1	1	...	...	...	...	...	...	...
VIII. DISEASES OF THE SKIN:															
142. Gangrene—															
Reynard's disease	1	...	...	...	...	...	1	...	...	...	...	...	...	...
143. Furuncle—															
Axilla	1	...	...	...	1	...	2	...	...	...	...	...	...	...
External auditory canal .....	...	1	1	1	...	...	3	...	...	...	...	...	...	...
Face	9	5	8	2	3	...	27	...	...	1	...	...	...	1
Thigh	1	...	1	...	...	...	2	...	...	...	...	...	...	...
Miscellaneous	5	1	3	1	3	...	13	...	...	...	...	...	...	...
144. Acute abscess—															
Abscess of															
Face .....	...	...	1	1	...	...	2	...	...	...	...	...	1	1
Finger .....	...	2	2	...	1	...	5	...	...	...	...	...	...	...
Foot	2	2	2	...	...	...	6	...	...	...	...	...	...	...
Knee .....	...	...	1	1	...	...	2	...	...	...	...	...	...	...
Miscellaneous	1	1	...	1	1	...	4	...	...	...	...	...	...	...
Cellulitis of															
Face	1	...	...	2	...	...	3	...	...	...	...	...	...	...
Finger	3	2	3	1	1	...	10	...	...	...	...	...	...	...

CASES BY CLASSES, 1912-13—WOMEN—Continued

	DISPENSARY PATIENTS					HOUSE PATIENTS						
	1916	1915	1914	1913	Grad. Spec.	Total	1916	1915	1914	1913	Grad. Spec.	Total
Diseases												
Foot	3	2	2	1	1	10	1	...	...	...	...	1
Hand	...	1	...	...	...	1	...	...	...	...	...	...
Miscellaneous	...	...	...	2	...	2	...	...	...	...	...	...
145. Other diseases of the skin and annexa—												
a. Trichophytosis	...	2	5	2	1	10	...	...	...	...	...	...
b. Scabies	2	5	...	1	1	9	...	...	...	...	...	...
c. Other diseases of the skin—												
Acne	21	4	6	4	4	42	...	...	...	...	...	...
Chillblain	2	2	3	3	1	11	...	...	...	...	...	...
Chromidrosis	...	...	...	...	1	1	...	...	...	...	...	...
Clavus	14	7	7	5	6	39	...	...	...	...	...	...
Dermatitis simplex	...	...	...	...	...	...	...	...	...	1	...	1
Dermatitis traumatica	3	...	...	...	1	4	...	...	...	...	...	...
Dermatitis venenata	26	22	15	23	19	106	2	4	...	...	...	6
Eczema—												
Arm	...	1	...	...	...	1	...	...	...	...	...	...
Ear	1	2	...	...	...	3	...	...	...	...	...	...
Face	1	1	...	...	...	2	...	...	...	...	...	...
Neck	...	1	...	...	...	1	...	...	...	...	...	...
Toe	...	1	...	...	...	1	...	...	...	...	...	...
Miscellaneous	5	4	2	5	1	17	...	...	...	...	...	...
Eczema scabrohoicum	1	3	...	...	1	5	...	...	...	...	...	...
Fissure of skin	...	...	...	...	1	1	...	...	...	...	...	...
Herpes	9	2	3	5	2	21	...	...	...	...	...	...
Impetigo—												
Face	1	1	1	...	...	3	...	...	...	...	...	...
Miscellaneous	...	...	2	...	...	2	...	...	...	...	...	...
Impetigo contagiosa	2	...	...	...	...	2	...	...	...	...	...	...
Fibroma	...	...	...	...	1	1	...	...	...	...	...	...
Leucoderma	1	...	...	...	...	1	...	...	...	...	...	...

Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS							
	1916	1915	1914	1913	Grad.	Spec.	Total	1916	1915	1914	1913	Grad.	Spec.	Total
Parasitic diseases—														
Phtheiriasis		1	...	...	...	...	1	...	...	...	...	...	...	...
Pruritis ani		1	...	...	1	...	2	...	...	...	...	...	...	...
Psoriasis	1	...	...	...	2	...	3	...	...	...	...	...	...	...
Seborrhoea		1	1	...	...	...	2	...	...	...	...	...	...	...
Urticaria	11	5	4	2	...	3	25	...	...	...	...	...	...	...
Wart—														
Foot		3	2	...	1	...	6	...	...	...	...	...	...	...
Hand	5	3	6	9	2	...	25	...	...	...	...	...	...	...
Miscellaneous .....		...	2	3	...	1	6	...	...	...	...	...	...	...
Ulcer .....		...	...	...	1	...	1	...	...	...	...	...	...	...
Nails—														
Ingrowing nail		1	1	...	...	...	2	...	...	...	...	...	...	...
Onychoma		1	...	...	...	...	1	...	...	...	...	...	...	...
Paronychia	2	2	2	1	...	...	7	...	...	...	...	...	...	...
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION:														
146. Diseases of the bones—														
Frontal Sinusitis	6	4	6	2	3	...	21	2	...	...	...	...	...	2
147. Diseases of the joints—														
Arthritis .....		...	...	1	...	...	1	...	...	...	...	...	...	...
149. Other diseases of the organs of locomotion—														
Bursitis		1	...	1	1	...	3	...	...	...	...	...	...	...
Ganglion, wrist	2	1	...	...	...	...	3	...	...	...	...	...	...	...
Hallux valgus	4	4	1	3	...	...	12	...	...	...	...	...	...	...
Muscle cramp	1	1	3	...	...	...	5	...	...	...	...	...	...	...
Pes planus	4	4	4	1	2	...	15	...	...	...	...	...	...	...
Myositis		1	...	...	...	...	1	...	...	...	...	...	...	...
Rheumatism, muscular .....		...	...	...	...	...	...	...	1	...	...	...	...	1

CASES BY CLASSES, 1912-13—WOMEN—Continued

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
X. MALFORMATIONS:										
150. Congenital malformations—										
Naevus (skin) .....	...	...	...	1	1	...	...	...	...	...
XIII. AFFECTIONS PRODUCED BY										
EXTERNAL CAUSES:										
164. Poisoning by food .....	...	1	...	1	3	...	1	...	...	1
165. Other acute poisonings—										
a. Insect bite	5	4	2	1	12	...	...	...	...	...
167. Burns—										
Arm	1	5	3	...	10	...	...	...	...	...
Face	1	...	1	...	3	...	...	...	...	...
Hand	3	6	...	3	18	...	...	...	...	...
Leg	1	...	1	3	5	...	...	...	...	...
Miscellaneous	1	...	...	...	1	...	...	...	...	...
Sunburn .....	...	1	...	...	1	...	...	...	...	...
171. Traumatism by cutting or pierc-										
ing instruments—										
Arm .....	...	1	...	...	1	...	...	...	...	...
Elbow	1	1	...	...	2	...	...	...	...	...
Finger	5	3	3	2	18	...	...	...	...	...
Foot	1	2	1	...	4	...	...	...	...	...
Hand	1	3	...	1	5	...	...	...	...	...
Leg	1	...	...	...	1	...	...	...	...	...
Nose .....	...	...	...	1	1	...	...	...	...	...
Spine .....	...	...	...	1	1	...	...	...	...	...
Miscellaneous	1	...	1	...	2	...	...	...	...	...
175. Traumatism by crushing—										
Elbow .....	...	1	...	...	1	...	...	...	...	...
Foot .....	...	1	1	...	2	...	...	...	...	...
Hand .....	...	...	1	...	1	...	...	...	...	...
Knee	1	...	...	...	1	...	...	...	...	...
Miscellaneous .....	...	1	...	...	1	...	...	...	...	...

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
185. a. Dislocations—										
Coccyx	1	1	---	---	---	---	---	---	---	---
Sacro-iliac	1	---	---	---	---	---	---	---	---	---
b. Sprains—										
Ankle	4	9	7	3	4	1	28	---	---	---
Coccyx	1	1	---	---	---	---	---	---	---	---
Elbow	---	5	3	---	1	---	9	---	---	---
Finger	---	---	2	---	---	---	2	---	---	---
Foot	2	1	1	---	---	---	2	---	---	---
Instep	1	---	---	---	---	---	3	---	---	---
Knee	---	---	---	1	---	---	1	---	---	---
Shoulder	---	---	---	1	---	---	1	---	---	---
Thigh	---	---	---	1	---	---	1	---	---	---
Wrist	3	2	---	1	1	---	7	---	---	---
c. Fractures—										
Colles	1	---	---	---	---	---	1	---	---	---
Fibula	---	---	---	---	---	---	---	---	---	---
Foot	1	---	1	---	---	---	2	---	---	---
Wrist	1	---	---	---	---	---	1	---	---	---
186. Other external violence—										
I. Organs and special structures										
Strain of muscle of										
Ankle	1	---	---	1	---	---	2	---	---	---
Arm	---	1	---	---	---	---	1	---	---	---
Elbow	---	1	---	---	---	---	1	---	---	---
Finger	---	1	---	---	---	---	1	---	---	---
Foot	4	2	1	2	---	---	9	---	---	---
Instep	1	---	---	---	---	---	1	---	---	---
Knee	1	---	---	---	---	---	1	---	---	---
Neck	1	---	1	---	---	---	2	---	---	---
Wrist	---	---	1	---	---	---	1	---	---	---
Miscellaneous	6	7	2	3	3	1	22	---	---	---

CASES BY CLASSES, 1912-13—WOMEN—Continued

Diseases II. Regions— Contusion and abrasion of	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1916	1915	1914	1913	Grad. Spec. Total	1916	1915	1914	1913	Grad. Spec. Total
Arm .....	...	...	1	...	2	...	...	...	...	...
Back .....	...	...	...	...	...	...	1	...	...	1
Elbow .....	...	1	1	...	3	...	...	...	...	...
Finger	4	5	4	6	22	...	...	...	...	...
Foot	4	8	1	10	26	...	...	...	...	...
Hand	1	3	1	1	2	...	...	...	...	...
Knee	4	2	2	1	9	...	...	...	...	...
Leg .....	...	...	2	...	2	...	...	...	...	...
Nose .....	...	1	...	...	1	...	...	...	...	...
Thigh .....	...	1	...	1	2	...	1	...	1	2
Wrist .....	...	1	1	...	1	...	...	...	...	...
Miscellaneous	3	...	1	2	6	...	...	...	...	...
XIV. ILL-DEFINED DISEASES:										
189. Unclassified or ill-defined:										
a. Diseases not specified—										
Headache	29	27	12	3	9	3	83	1	...	2
Insomnia .....	...	2	1	2	...	...	5	...	...	...
Unknown	1	2	...	2	...	1	6	...	...	...
b. No disease—										
Hygiene advice	4	1	...	3	...	...	8	...	...	...
No disease	10	5	8	1	6	3	33	2	1	4
Operation wound	1	...	...	...	...	...	1	...	...	...

EXCUSES ISSUED DURING 1912-13—BY CLASSES

Diseases	MEN					WOMEN					Physician	
	'16	'15	'14	'13	Gr.	Sp.	Total	Indiv.	Univ.	Out.	No	No
I. GENERAL DISEASES												
1. Typhoid fever—												
Anti-typh. inoculation..	13	11	2	2	...	1	29	25	29	...	...	...
4. Malaria	14	3	3	...	...	...	20	10	14	2	4	...
6. Measles	4	2	1	2	2	...	11	11	9	1	1	...
9. Diphtheria	2	...	...	...	...	...	2	1	2	...	...	...
10. Influenza	4	1	3	2	...	...	10	9	1	9	...	...
19. Other epidemic diseases..	49	28	14	9	2	2	104	82	84	10	10	...
24. Tetanus .....	...	...	...	...	...	...	...	...	...	...	...	...
33. Tuberculosis of joints	1	...	...	...	...	...	1	1	...	1	...	...
34. Tuberculosis of other organs .....	...	3	...	...	...	...	3	1	...	3	...	...
38. Gonococcus infection	15	10	4	2	...	...	31	14	4	24	3	...
46. Benign tumors	2	2	...	...	...	...	4	3	3	1	...	...
47. Acute art. rheumatism ..	...	...	...	...	...	...	...	...	...	...	...	...
48. Chronic rheumatism	1	1	...	...	...	...	2	2	2	...	...	...
II. DISEASES OF THE NERVOUS SYSTEM:												
66. Paralysis	3	...	...	1	...	...	4	2	4	...	...	...
69. Epilepsy	1	...	...	...	...	...	1	1	...	1	...	...
73. Neuralgia and Neuritis....	11	6	...	...	1	...	18	16	6	5	7	...
74. Other diseases of the nervous system	8	3	1	1	...	...	13	10	4	2	7	...
75. Diseases of the eye	104	43	17	5	...	1	170	109	74	63	33	...
76. Diseases of the ear	11	7	4	3	...	...	25	20	14	8	3	...
III. DISEASES OF THE CIRCULATORY SYSTEM:												
79. Organic diseases of the heart	3	2	...	...	...	...	5	4	2	3	...	...
80. Angina pectoris .....	...	...	...	...	...	...	...	...	...	...	...	...
83. Diseases of the veins	2	...	4	...	...	...	6	5	4	...	2	...
85. Haemorrhage	4	1	1	1	1	...	8	7	4	1	3	...

EXCUSES ISSUED DURING 1912-13—BY CLASSES—Continued

Diseases	MEN										WOMEN										Physician		
	'16	'15	'14	'13	Gr.	Sp.	Total	Indiv.	Univ.	Out.	No	'16	'15	'14	'13	Gr.	Sp.	Total	Indiv.	Univ.		Out.	No
IV. DISEASES OF THE RESPIRATORY SYSTEM:																							
86. Diseases of the nasal fossae																							
87. Diseases of the larynx....																							
88. Diseases of the thyroid body																							
89. Acute bronchitis																							
92. Pneumonia																							
93. Pleurisy																							
94. Pulmonary congestion																							
96. Asthma																							
V. DISEASES OF THE DIGESTIVE SYSTEM:																							
99. a. Diseases of the teeth and gums																							
b. Diseases of the mouth and annexa																							
100. Diseases of the pharynx....																							
102. Ulcers of the stomach																							
103. Other diseases of the stomach																							
105. Diarrhoea and enteritis..																							
107. Intestinal parasites																							
108. Appendicitis																							
109. Hernia; intestinal obstructions																							
110. Diseases of the intestines																							
115. Other diseases of the liver																							

EXCUSES ISSUED DURING 1912-13—BY CLASSES—Continued

[illegible]

INFIRMARY SUMMARIES

(August 5, 1912–May 15, 1913)

DISPENSARY

	Men	Women	Total
Individuals treated	2,117	1,384	3,501
Number of treatments	16,530	9,446	25,976
Number of cases	6,127	3,517	9,644
Number of days open			283
Average number of patients treated daily			91.7
Average number of treatments per patient			7.4
Percentage of students treated			74.7
Percentage of students graduating in 1913 treated at the Infirmary:			
Men			92.5
Women			88.4
Average			90.9

HOUSE PATIENTS

DISCHARGED:	Men	Women	Total
Well	282	82	364
Relieved	75	67	142
Not relieved	5	2	7
Deceased	1	---	1
	363	151	514
Total number of Infirmary days			2,692
Number of days open			283
Total number of cases			629
Total number of individuals			433
Students who were in the Infirmary more than once during the year			81
Average stay in days			5.2
Average number of patients per day			9.5
Largest number of patients in one day			22
Surgical cases			102
Operations			59
Anaesthesia (general)			55

LABORATORY EXAMINATIONS, 1912-13

Blood	111	Sputum	44
Feces	19	Stomach contents	3
Nose and throat cultures	87	Miscellaneous	19
Urine	496		

DISPENSARY PATIENTS				HOUSE PATIENTS			
	No. cases	No. treat.	Medi- cal	No. cases	No. treat.	Medi- cal	Not Relieved
			cal			cal	relieved
83. Diseases of the veins—							
Haemorrhoids	1	2	1	....	....	....	....
85. Haemorrhage—							
Epistaxis	1	2	1	....	....	....	....
IV. DISEASES OF THE RESPIRATORY SYSTEM:							
86. Diseases of the nasal fossae—							
Catarrh, chronic	1	1	1	....	....	....	....
Nasal septum—deflected	2	7	2	....	....	....	....
Polypus, nasal	1	19	1	....	....	....	....
Rhinitis—							
Acute	13	25	13	....	....	....	....
Chronic	2	4	2	....	....	....	....
87. Diseases of the larynx—							
Laryngitis	1	1	1	....	....	....	....
88. Diseases of the thyroid body—							
Adenitis	2	2	2	....	....	....	....
89. Acute bronchitis—							
Tracheitis	1	2	1	....	....	....	....
96. Asthma	1	4	1	....	....	....	....
V. DISEASES OF THE DIGESTIVE SYSTEM:							
100. Diseases of the pharynx—							
Anginalitis	4	6	4	2	9	2	....
Hypertrophy of tonsil	1	5	1	....	....	....	....
Pharyngitis, acute	10	15	10	1	3	1	....
Pharyngitis, chronic	2	3	2	....	....	....	....
103. Other diseases of the stomach—							
Gastritis, acute	1	1	1	....	....	....	....
Hyperchlorhydra	1	1	1	2	3	2	2

SUMMER SESSION, 1913—MEN—Continued

DISPENSARY PATIENTS					HOUSE PATIENTS						
Diseases	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal	Well	Relieved	Not relieved
105. Diarrhoea and enteritis—											
Enteritis, acute	1	2	1	---	1	1	1	---	1	---	---
Enteritis, chronic	3	5	3	---	---	---	---	---	---	---	---
110. Diseases of the intestines—											
Constipation	1	1	1	---	1	2	1	---	1	---	---
VI. NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM:											
125. Diseases of the urethra—											
Abscess, urethra	1	1	---	1	---	---	---	---	---	---	---
126. Diseases of the Prostate—											
Prostatitis	2	15	---	2	---	---	---	---	---	---	---
127. Non-veneral diseases of the male genital organs—											
Ballanitis	1	2	1	---	---	---	---	---	---	---	---
VIII. DISEASES OF THE SKIN:											
143. Furuncle—											
Ear	1	2	---	1	---	---	---	---	---	---	---
Face	1	1	---	1	---	---	---	---	---	---	---
Neck	1	1	---	1	---	---	---	---	---	---	---
144. Acute abscess—											
Abscess of											
Face	1	2	---	1	---	---	---	---	---	---	---
Finger	2	6	---	2	---	---	---	---	---	---	---
Cellulitis of											
Eyelid	1	1	---	1	---	---	---	---	---	---	---
Finger	---	---	---	---	---	3	---	1	---	1	---
Gum	1	2	---	1	---	---	---	---	---	---	---
Hand	1	1	---	1	---	---	---	---	---	---	---
Neck	1	6	---	1	---	---	---	---	---	---	---

SUMMER SESSION, 1913—MEN—Continued

DISPENSARY PATIENTS					HOUSE PATIENTS						
Diseases	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal	Well	Relieved	Not relieved
145. Other diseases of the skin and annexa—											
<i>a.</i> Trichophytosis	1	1	1	---	---	---	---	---	---	---	---
<i>b.</i> Scabies	1	1	1	---	---	---	---	---	---	---	---
<i>c.</i> Other diseases of the skin—											
Acne	1	1	1	---	---	---	---	---	---	---	---
Dermatitis venenata	7	13	7	---	---	---	---	---	---	---	---
Eczema—											
Anal	1	1	1	---	---	---	---	---	---	---	---
Foot	1	1	1	---	---	---	---	---	---	---	---
Penis	1	1	1	---	---	---	---	---	---	---	---
Toes	1	1	1	---	---	---	---	---	---	---	---
Parasitic diseases—											
Seborrhoic eczema	1	6	1	---	---	---	---	---	---	---	---
Pruritis ani	1	2	1	---	---	---	---	---	---	---	---
Urticaria	1	1	1	---	---	---	---	---	---	---	---
Warts	3	6	---	3	---	---	---	---	---	---	---
146. Diseases of the bones—											
Frontal sinusitis	2	6	2	---	---	---	---	---	---	---	---
147. Diseases of the joints—											
Arthritis	2	6	2	---	---	---	---	---	---	---	---
149. Other diseases of the organs of locomotion—											
Myositis	2	5	2	---	---	---	---	---	---	---	---
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES:											
165. Other acute poisonings—											
<i>a.</i> Insect sting	2	2	---	2	---	---	---	---	---	---	---
171. Traumatism by cutting or piercing instruments—											
Eardrum	1	6	---	1	---	---	---	---	---	---	---

SUMMER SESSION, 1913—WOMEN—Continued

DISPENSARY PATIENTS				HOUSE PATIENTS					
Diseases	No. cases	No. treat.	Medi- cal	Surgi- cal	No. treat.	Medi- cal	Surgi- cal	Well Relieved	Not relieved
III. DISEASES OF THE CIRCULATORY SYSTEM:									
83. Diseases of the veins—									
Haemorrhoids	1	1	1	---	---	---	---	---	---
84. Diseases of the lymphatic system—									
Lymphadenitis	1	1	1	---	---	---	---	---	---
IV. DISEASES OF THE RESPIRATORY SYSTEM:									
86. Diseases of the nasal fossae—									
Rhinitis—									
Acute	13	30	13	---	---	---	---	---	---
Chronic	6	32	6	---	---	---	---	---	---
87. Diseases of the larynx—									
Laryngitis	1	1	1	---	---	---	---	---	---
88. Diseases of the thyroid body—									
Hyperthyroidism	1	2	1	---	1	4	1	---	1
89. Acute bronchitis—									
Tracheitis	2	3	2	---	---	---	---	---	---
91. Bronchopneumonia	---	---	---	---	1	10	1	---	1
93. Pleurisy	---	---	---	---	1	19	1	---	1
V. DISEASES OF THE DIGESTIVE SYSTEM:									
99. Diseases of the mouth and annexa—									
a. Diseases of teeth and gums—									
Gingivitis	1	1	1	---	---	---	---	---	---
Pyorrhoea alveolaris	1	1	1	---	---	---	---	---	---

SUMMER SESSION, 1913—WOMEN—Continued

	DISPENSARY PATIENTS				HOUSE PATIENTS			
	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal
Diseases								
100. Diseases of the pharynx—								
Amygdalitis—								
Acute	5	10	5	---	---	---	---	---
Follic.	---	---	---	---	1	9	1	---
Pharyngitis	10	20	10	---	---	---	---	1
105. Diarrhoea and enteritis—								
Enteritis	1	1	1	---	1	4	1	1
Gastro-duodenitis	4	4	4	---	---	---	---	---
108. Appendicitis	1	1	---	1	1	8	---	1
109. Hernia—								
Inguinal	1	3	---	1	---	---	---	---
110. Diseases of the intestines—								
Constipation	6	9	6	---	---	---	---	---
115. Other diseases of the liver—								
Biliousness	1	1	1	---	---	---	---	---
VI. NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM:								
130. Other diseases of the uterus—								
Dysmenorrhoea	3	5	3	---	---	---	---	---
Leucorrhoea	4	10	4	---	---	---	---	---
132. Salpingitis and other diseases of the female genital organs—								
Ovaritis	1	5	1	---	---	---	---	---
VII. THE PUERPERAL STATE:								
134. b. Accidents of pregnancy—								
Pregnancy	1	1	1	---	---	---	---	---
VIII. DISEASES OF THE SKIN:								
143. Furuncle	3	7	---	3	1	4	---	1
144. Acute abscess—								
Abscess of								

SUMMER SESSION, 1913—WOMEN—Continued

	DISPENSARY PATIENTS				HOUSE PATIENTS			
	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal
Diseases								
Finger	1	9	---	1	---	---	---	---
Gum	1	1	---	1	---	---	---	---
Cellulitis of								
Finger	1	1	---	1	---	---	---	---
Foot	1	2	---	1	---	---	---	---
Toe	1	2	---	1	---	---	---	---
145. Other diseases of the skin and annexa—								
e. Acne	5	7	5	---	---	---	---	---
Dermatitis venenata	9	13	9	---	1	8	---	1
Parasitic diseases—								
Herpes libialis	1	1	1	---	---	---	---	---
Paronychia	2	7	2	---	---	---	---	---
Urticaria	3	4	3	---	---	---	---	---
Warts	2	13	---	2	---	---	---	---
146. Diseases of the bones—								
Periostitis—								
Coccyx	1	1	1	---	---	---	---	---
Elbow	1	1	1	---	---	---	---	---
Leg	1	2	1	---	---	---	---	---
149. Other diseases of the organs of locomotion—								
Myositis	2	4	2	---	---	---	---	---
Pes planus	8	9	8	---	---	---	---	---
Rheumatism, muscular	1	1	1	---	---	---	---	---
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES:								
165. Other acute poisonings—								
a. Insect bite	2	2	---	2	---	---	---	---

XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES:

165. Other acute poisonings—

a. Insect bite

DISPENSARY PATIENTS					HOUSE PATIENTS					
Diseases	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal	Well Relieved	Not Relieved
167. Burns—										
Hand	1	1	---	1	---	---	---	---	---	---
Sunburn	1	1	---	1	---	---	---	---	---	---
171. Traumatism by cutting or pier- ing instruments—										
Feet	1	2	---	1	---	---	---	---	---	---
Head	1	4	---	1	---	---	---	---	---	---
176. Injuries by animals —										
Dog bite	1	3	---	1	---	---	---	---	---	---
185. Fractures—										
185. a. Dislocation—										
Finger	1	2	---	1	---	---	---	---	---	---
185. b. Sprains—										
Ankle	4	9	---	4	1	2	---	1	1	---
Finger	1	2	---	1	---	---	---	---	---	---
Foot	5	8	---	5	---	---	---	---	---	---
Knee	1	1	---	1	---	---	---	---	---	---
Thumb	1	2	---	1	---	---	---	---	---	---
186. Other external violence—										
Contusions and abrasions—										
Finger	1	1	---	1	---	---	---	---	---	---
Hand	2	2	---	2	---	---	---	---	---	---
Knee	3	6	---	3	---	---	---	---	---	---
Toes	1	2	---	1	---	---	---	---	---	---
Foreign body—										
Finger	2	2	---	2	---	---	---	---	---	---
Tonsil	1	1	---	1	---	---	---	---	---	---

SUMMER SESSION, 1913—WOMEN—Continued

Diseases Strain—	DISPENSARY PATIENTS				HOUSE PATIENTS				Not Relieved	Not relieved
	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal	Well	Relieved
Foot	9	15	---	9	---	---	---	---	---	---
Muscle	3	3	---	3	---	---	---	---	---	---
Thigh	2	3	---	2	---	---	---	---	---	---
Wrist	2	2	---	2	---	---	---	---	---	---
<hr/>										
XIV. ILL-DEFINED DISEASES:										
189. Unclassified or ill-defined—										
a. Headache	1	1	1	---	---	---	---	---	---	---
b. No disease	6	7	6	---	---	---	---	---	---	---
Hygiene advice	1	1	1	---	---	---	---	---	---	---
<hr/>										
Total	215	438	128	87	14	75	10	4	6	8

Individuals at the Infirmary: Women, 205.

Diseases (International classification)	DISPENSARY PATIENTS			HOUSE PATIENTS		
	No. cases	No. treat.	Medi- cal	Surgi- cal	No. Medi- cal	No. Surgi- cal
II. DISEASES OF THE NERVOUS SYSTEM:						
75. Diseases of the eyes and annæa						
Foreign body	1	1	---	1	---	---
76. Diseases of the ears—						
Otitis media	1	3	1	---	---	---
V. DISEASES OF THE DIGESTIVE SYSTEM:						
100. Diseases of the pharynx—						
Pharyngitis	4	6	4	---	---	---
103. Other diseases of the stomach—						
Gastritis	1	1	1	---	---	---
VIII. DISEASES OF THE SKIN:						
144. Acute abscess—						
Finger	1	11	---	1	---	---
Cellulitis—						
Finger	1	1	---	1	---	---
Hand	1	1	---	1	---	---
145. c. Other diseases of the skin and annæa—						
Dermatitis venenata	1	1	---	1	---	---
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES:						
167. Burns—						
Forearm	1	4	---	1	---	---
Neck	1	4	---	1	---	---
Scalp	1	4	---	1	---	---
Shoulder	1	4	---	1	---	---
171. Traumatism by cutting or piercing instruments—						
Face	1	2	---	1	---	---

EMERGENCY CASES (NOT UNIVERSITY STUDENTS), 1912-13—Continued

DISPENSARY PATIENTS					HOUSE PATIENTS					
Diseases	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal	Well Relieved	Not relieved
Finger	4	15	---	4	---	---	---	---	---	---
Hand	2	2	---	2	---	---	---	---	---	---
Head	5	11	---	5	---	---	---	---	---	---
Wrist	2	2	---	2	---	---	---	---	---	---
185. b. Sprains—										
Wrist	1	4	---	1	---	---	---	---	---	---
185. c. Fractures—										
Arm	1	1	---	1	---	---	---	---	---	---
Fibula	---	---	---	---	1	2 hrs.	---	1	---	1
Metacarpal	1	1	---	1	---	---	---	---	---	---
Tibia	---	---	---	---	1	2 hrs.	---	1	---	1
186. Other external violence—										
Abrasion—lip	1	2	---	1	---	---	---	---	---	---
Foreign body—buttock	1	1	---	1	---	---	---	---	---	---
Haematoma—back	---	---	---	---	1	3	---	1	---	1
Total	32	82	6	28	3	3 d. 4 hrs.	---	3	---	3

REPORT OF EMPLOYEES, 1912-13

STATISTICS OF THE INFIRMARY

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Diseases	DISPENSARY PATIENTS			HOUSE PATIENTS		
	No. cases treat.	No. Medi- cal	Surgi- cal	No. Medi- cal	Surgi- cal	Not Relieved
I. GENERAL DISEASES:						
(International classification)						
6. Measles .....	...	...	...	1	12	1
19. Vaccinia	16	76	16	...	...	...
34. Tuberculosis of other organs—						
Tuber. of glands, operation for .....	...	...	...	1	2 $\frac{1}{2}$	1
37. Syphilis	1	12	1	1	1 $\frac{1}{2}$	1
46. Other tumors—						
Cyst—neck	1	5	1	...	...	...
47. Rheumatism, chronic articular. . .	1	1	1	...	...	...
II. DISEASES OF THE NERVOUS SYSTEM:						
73. Neuralgia and neuritis—						
a. Hysteria .....	...	...	...	1	11	1
75. Diseases of the eyes and annexa						
Conjunctivitis	1	4	1	...	...	...
Foreign body	5	5	5	...	...	...
Ulcer—eyelid	1	1	1	...	...	...
76. Diseases of the ears—						
Cerumen—accum. of	3	5	3	...	...	...
Eustachian salpingitis	1	1	1	...	...	...
Otitis media	1	1	1	...	...	...
III. DISEASES OF THE CIRCULATORY SYSTEM:						
77. Pericarditis	1	1	1	...	...	...
78. Myocarditis	1	2	1	...	...	...
IV. DISEASES OF THE RESPIRATORY SYSTEM:						
86. Diseases of the nasal fossae—						
Rhinitis, acute	6	8	6	...	...	...

REPORT OF EMPLOYEES, 1912-13—Continued

DISPENSARY PATIENTS				HOUSE PATIENTS						
Diseases	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal	Well Relieved	Not relieved
87. Diseases of the larynx—	3	6	3	---	---	---	---	---	---	---
Laryngitis	3	6	3	---	---	---	---	---	---	---
89. Acute bronchitis—	2	6	2	---	1	2	1	---	1	---
Bronchitis	2	6	2	---	1	2	1	---	1	---
Tracheitis	5	9	5	---	1	6	1	---	1	---
V. DISEASES OF THE DIGESTIVE SYSTEM:										
100. Diseases of the pharynx—	2	4	2	---	1	2	1	---	1	---
Amygdalitis	2	4	2	---	1	2	1	---	1	---
Pharyngitis	13	20	13	---	---	---	---	---	---	---
Vincent's angina	2	14	2	---	---	---	---	---	---	---
103. Other diseases of the stomach—	3	6	3	---	---	---	---	---	---	---
Gastritis, acute	3	6	3	---	---	---	---	---	---	---
Hyperchlorhydria	1	2	1	---	---	---	---	---	---	---
105 Diarrhoea and enteritis—	7	9	7	---	---	---	---	---	---	---
Enteritis	7	9	7	---	---	---	---	---	---	---
109. Hernia—	1	2	---	1	---	---	---	---	---	---
Inguinal	1	2	---	1	---	---	---	---	---	---
Umbilical	1	2	---	1	---	---	---	---	---	---
110. Diseases of intestines—	2	3	2	---	---	---	---	---	---	---
Constipation	2	3	2	---	---	---	---	---	---	---
Enteroptosis	1	5	1	---	---	---	---	---	---	---
VIII. DISEASES OF THE SKIN:										
143. Furuncle—	1	5	---	1	---	---	---	---	---	---
Arm	1	5	---	1	---	---	---	---	---	---
Neck	1	4	---	1	---	---	---	---	---	---
Miscellaneous	1	1	---	1	---	---	---	---	---	---
144. Cellulitis—	3	9	---	3	---	---	---	---	---	---
Finger	3	9	---	3	---	---	---	---	---	---
Hand	2	6	---	1	1	2	1	---	1	---
Toe	1	2	---	1	---	---	---	---	---	---

STATISTICS OF THE INFIRMARY

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DISPENSARY PATIENTS				HOUSE PATIENTS							
Diseases	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal	Well	Relieved	Not relieved
Abscess—											
Back	1	6	---	1	---	---	---	---	---	---	---
Neck	1	6	---	1	---	---	---	---	---	---	---
145. <i>a.</i> Trichophytosis	2	4	2	---	---	---	---	---	---	---	---
145. <i>b.</i> Scabies	1	1	1	---	---	---	---	---	---	---	---
145. <i>c.</i> Other diseases of the skin—											
Cyst—operation for	1	3	---	1	---	---	---	---	---	---	---
Dermatitis venenata	5	6	5	---	---	---	---	---	---	---	---
Wart—wrist	1	1	---	1	---	---	---	---	---	---	---
Wen—forehead	1	6	---	1	---	---	---	---	---	---	---
Nails—ingrowing nail	2	2	---	2	---	---	---	---	---	---	---
IX. DISEASES OF THE BONES AND OF											
THE ORGANS OF LOCOMOTION:											
146. Diseases of the bones—											
Frontal sinusitis	1	2	1	---	---	---	---	---	---	---	---
147. Diseases of the joints—											
Arthritis	1	1	1	---	---	---	---	---	---	---	---
Synovitis—knuckle	1	4	1	---	---	---	---	---	---	---	---
149. Other diseases of the organs of locomotion—											
Lumbago	1	1	1	---	---	---	---	---	---	---	---
Rheumatism	2	7	2	---	---	---	---	---	---	---	---
XIII. AFFECTIONS PRODUCED BY											
EXTERNAL CAUSES:											
167. Burn—hand	2	9	---	2	---	---	---	---	---	---	---
171. Traumatism by cutting—											
Finger	9	16	---	9	---	---	---	---	---	---	---
Face	1	1	---	1	---	---	---	---	---	---	---
Hand	4	12	---	4	---	---	---	---	---	---	---
Toe	1	1	---	1	---	---	---	---	---	---	---
177. <i>a.</i> Over-exertion	---	---	---	---	---	2	9	2	---	---	---

REPORT OF EMPLOYEES, 1912-13—Continued

DISEASES	DISPENSARY PATIENTS				HOUSE PATIENTS			
	No. cases	No. treat.	Medi- cal	Surgi- cal	No. cases	No. treat.	Medi- cal	Surgi- cal
185. a. Dislocations	1	1	---	1	---	---	---	---
Metacarpus	1	1	---	1	---	---	---	---
Finger	1	1	---	1	---	---	---	---
185. b. Sprains—								
Ankle	2	3	---	2	---	---	---	---
Finger	1	6	---	1	---	---	---	---
Shoulder	1	1	---	1	---	---	---	---
Thumb	2	2	---	2	---	---	---	---
Wrist	1	1	---	1	---	---	---	---
186. Contusion and abrasion—								
Arm	1	2	---	1	---	---	---	---
Abdominal wall	1	2	---	1	---	---	---	---
Back	1	1	---	1	---	---	---	---
Chest	1	1	---	1	---	---	---	---
Finger	2	4	---	2	---	---	---	---
Foot	1	2	---	1	---	---	---	---
Hand	6	17	---	6	---	---	---	---
Knee	1	2	---	1	---	---	---	---
Scalp	1	1	---	1	---	---	---	---
Foreign body—								
Hand	2	2	---	2	---	---	---	---
Finger	2	3	---	2	---	---	---	---
Strain—muscles	2	3	2	---	---	---	---	---
XIV. ILL-DEFINED DISEASES:								
189. a. Headache	1	1	1	---	---	---	---	---
189. b. No disease—								
No diagnosis	3	10	3	---	---	---	---	---
Total	164	393	79	85	10	48	8	2
							6	4

Individuals at the Infirmary: Employees, 103.

STATISTICAL ADDENDA

COMPILED BY THE RECORDER OF THE FACULTIES

TABLE 1.—Summaries of officers of instruction in the colleges at Berkeley, 1892-1913.

Year	Professors		Assoc.	Asst.	Lectrs.	Instrs.	Dept. Teaching		Totals
	Acting	Emer.	Profs.	Profs.			Assts.*	Fellows	
1892-93.....	16	....	9	10	1	19	18	4	77
1893-94.....	17	....	9	12	0	20	37	7	102
1894-95.....	21	....	9	12	0	24	41	7	114
1895-96.....	21	....	10	13	0	26	37	6	113
1896-97.....	22	....	10	18	0	21	28	8	107
1897-98.....	25	....	8	25	2	35	26	6	127
1898-99.....	30	1	14	19	1	40	36	0	141
1899-1900.....	29	2	15	20	2	40	40	5	153
1900-01.....	31	2	14	19	2	41	45	2	156
1901-02.....	29	1	13	22	5	56	43	0	169
1902-03.....	34	1	12	26	14	64	48	4	203
1903-04.....	36	2	14	42	14	51	60	3	222
1904-05.....	39	1	16	48	16	45	86	3	254
1905-06.....	37	3	18	51	14	55	82	3	263
1906-07.....	40	3	19	57	14	46	94	3	276
1907-08.....	44	3	22	59	12	47	104	4	295
1908-09.....	50	3	28	62	14	53	100	6	316
1909-10.....	55	8	23	70	14	52	118	7	347
1910-11.....	47	10	29	64	14	57	75	7	303
1911-12.....	48	9	42	57	18	81	110	9	374
1912-13.....	55	8	38	61	17	77	121	16	393

* Including readers.

TABLE 2.—Officers of instruction in the colleges and departments away from Berkeley.

Year	L.O.*	Art	Law	Medicine		P. G.		Dentistry	Pharm.	Univ. Farm
				S.F.	L.A.	Medicine				
1896-97.....	8	6	5	84	....	54		37	14	....
1897-98.....	10	6	6	49	....	51		41	10	....
1898-99.....	11	6	5	68	....	58		43	7	....
1899-1900.....	11	8	5	70	....	82		45	10	....
1900-01.....	12	8	5	68	....	94		45	9	....
1901-02.....	11	8	5	81	....	101		50	11	....
1902-03.....	12	9	5	50	....	109		46	10	....
1903-04.....	13	10	6	62	....	28		24	9	....
1904-05.....	13	9	6	55	....	23		25	8	....
1905-06.....	9	9	6	66	....	....		22	8	....
1906-07.....	7	....	6	52	....	....		34	9	....
1907-08.....	7	11	6	54	....	....		34	8	....
1908-09.....	8	7	6	54	....	....		31	8	....
1909-10.....	7	7	6	58	59	....		26	8	....
1910-11.....	16	9	6	55	61	....		32	8	10
1911-12.....	16	10	6	55	61	....		31	7	14
1912-13.....	17	12	6	53	58	....		24	9	....

* 1894-95, 7; 1895-96, 7.

TABLE 3.—Students in the several colleges, 1903-1913.

NOTE.—The upper figures on the left of each group refer to men, the lower to women; the figures on the right side are the totals.
The following table does not include students in the following courses of instruction: University Extension, San Francisco Institute of Art, The University Farm School, Short Courses in Agriculture, Correspondence Courses at Davis, Farmers' Institutes, Wilmerding School of Industrial Arts.

In Berkeley:		1903-04	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13
<i>Graduate Students:</i>	COLLEGES.										
	.....	160 109 269	141 102 243	155 196 351	148 133 281	151 173 324	186 217 403	214 211 425	258 243 501	311 267 578	344 304 648
<i>Undergraduates:</i>	Letters	67 165 232	70 145 215	65 129 194	40 105 145	39 93 132	39 98 137	35 116 151	59 113 172	64 104 168	69 107 176
	Social Sciences	265 714 979	274 740 1014	290 764 1054	286 763 1049	311 790 1101	321 732 1053	341 768 1109	365 786 1151	342 796 1138	395 911 1306
	Natural Sciences ..	84 108 192	81 108 189	88 103 191	106 115 221	124 96 220	177 104 281	230 170 400	349 260 609	454 409 863	566 511 1077
	Commerce	114 5 119	119 6 125	149 5 154	150 4 154	177 0 177	186 4 190	222 2 224	258 5 263	263 5 268	282 5 287
	Agriculture.....	96 6 102	96 10 106	115 8 123	117 10 127	128 4 132	145 7 152	191 6 197	270 10 280	350 22 372	429 26 455
	Mechanics	242 1 243	264 2 266	267 0 267	264 0 264	260 0 260	293 0 293	301 0 301	294 0 294	316 0 316	318 0 318
	Mining	293 0 293	285 0 285	271 0 271	274 0 274	278 0 278	261 0 261	243 0 243	209 0 209	160 0 160	132 0 132
	Civil Engineering..	166 0 166	207 0 207	211 0 211	219 0 219	250 0 250	246 0 246	232 0 232	236 0 236	234 0 234	224 0 224
	Chemistry	87 20 107	55 7 62	48 6 54	37 5 42	34 5 39	47 3 50	44 2 46	55 2 57	56 0 56	60 0 60
	At Large*								[38]* [29]* [30 68]	[29]* [36 65]	[23]* [37 60]
	Medicine										
	Total Under- graduates } ..	1414 1019 2433	1451 1018 2469	1504 1015 2519	1502 1003 2505	1613 997 2610	1729 970 2699	1863 1090 2953	2122 1179 3301	2266 1336 3602	2527 1567 4094
Total in the Colleges at Berkeley (deducting for duplicates)		1570 1118 2688	1590 1109 2699	1647 1192 2839	1643 1118 2761	1760 1156 2916	1907 1176 3083	2067 1285 3352	2343 1403 3746	2539 1573 4112	2821 1846 4667
Percentage of men, departments at Berkeley		58.41	58.91	58.01	59.51	60.36	61.85	61.66	62.55	61.74	60.44

STATISTICAL ADDENDA

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	1903-04	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13
Lick Observatory, Mt. Hamilton:	{ 3 0 3	{ 3 0 3	{ 3 1 4	{ 1 1 2	{ 3 0 3	{ 3 0 3	{ 1 1 2	{ 1 1 2	{ 2 0 2	-----
In San Francisco:										
Hastings College of the Law.....	{ 73 4 77	{ 74 5 79	{ 74 2 76	{ 73 1 74	{ 69 0 69	{ 98 2 100	{ 116 1 117	{ 104 1 105	{ 117 2 119	{ 100 0 100
College of Medicine.....	{ 99 15 114	{ 88 12 100	{ 64 9 73	{ 35 5 40	{ 25 1 26	{ 28 7 35	{ 39 10 49	{ 18 0 18	{ 16 2 18	{ 17 3 20
Post-Graduate Medical Department	{ ----- 2 14									
College of Dentistry.....	{ 107 4 111	{ 85 2 87	{ 71 3 74	{ 64 1 65	{ 69 0 69	{ 53 0 53	{ 57 0 57	{ 64 0 64	{ 77 1 78	{ 90 0 90
California College of Pharmacy.....	{ 75 7 82	{ 83 3 86	{ 76 5 81	{ 43 4 47	{ 42 3 45	{ 62 5 67	{ 67 5 72	{ 78 7 85	{ 79 1 80	{ 95 3 98
Total in the Colleges } in San Francisco }	{ 354 30 384	{ 342 24 366	{ 285 19 304	{ 215 11 226	{ 205 4 209	{ 241 14 255	{ 279 16 295	{ 264 8 272	{ 289 6 295	{ 302 6 308
In Los Angeles:										
Total in the University (deducting for duplicates).....	{ 1919 1145 3064	{ 1920 1131 3051	{ 1932 1211 3143	{ 1858 1129 2987	{ 1965 1160 3125	{ 2127 1184 3311	{ 2352 1301 3653	{ 2631 1417 4048	{ 2842 1579 4421	{ 3128 1852 4980
Summer Session	{ 406 462 868	{ 409 504 913	{ 339 459 798	{ 330 377 707	{ 258 264 522	{ 317 344 661	{ 381 438 819	{ 460 591 1051	{ 562 1419 1981	{ 676 1599 2275
Total	{ 2925 1607 3992	{ 2971 1635 3964	{ 2971 1070 3941	{ 2188 1306 3694	{ 2923 1124 3647	{ 2444 1528 3972	{ 2733 1739 4472	{ 3091 2008 5099	{ 3404 2998 6402	{ 3804 3451 7255
Deduct for duplicate registrations in Summer Session and in Fall session following	290	305	268	204	154	109	189	245	293	220 183 403
Grand Total	3642	3659	3673	3490	3493	3863	4283	4854	6109	3268 6852

TABLE 4.—Showing proportion (per cent) of the undergraduates, including special students, in each of the colleges at Berkeley.

	1902-03	1903-04	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13
Letters	11.56	9.54	8.70	7.70	5.70	5.05	5.07	5.11	5.21	4.66	4.30
Soc. Sciences	39.90	40.24	41.06	41.84	41.87	42.14	39.01	37.52	34.86	31.60	31.90
Nat. Sciences	8.22	7.89	7.65	7.58	8.82	8.42	10.41	13.54	18.45	23.93	26.31
Commerce	3.58	4.89	5.06	5.71	6.14	6.78	7.03	7.50	7.96	7.44	7.01
Agriculture	3.71	4.19	4.29	4.88	5.07	5.05	5.63	6.67	8.48	10.33	11.11
Mechanics	9.57	9.99	10.77	10.59	10.53	9.96	10.85	10.19	8.96	8.82	7.77
Mining	11.28	12.04	11.54	10.75	10.93	10.65	9.67	8.22	6.33	4.44	3.22
Civ. Eng.	5.46	6.82	8.38	8.37	8.74	9.58	9.11	7.11	7.14	6.49	5.47
Chemistry	6.72	4.40	2.51	2.14	1.67	1.49	1.85	1.55	1.72	1.55	1.46
Medicine .....	.....	.....	.....	.....	.30	.26	.55	.50	.09	.08	1.44
At large .....	.....	.....	.....	.....	.....	.53	1.33	1.18	*[2.06]	*[1.80]	*[1.46]

* In the above table, beginning 1910-11, students at large are summarized separately, and are also distributed among the several colleges, according to expressed collegiate preference.

TABLE 5.—Summary of students registered to November 1 (approximately), 1907, 1908, 1909, 1910, 1911, 1912, and 1913.

A. The colleges at Berkeley:							
(1) Graduate students in the colleges of letters and sciences (including engineering)	Nov. 1, 1907	Nov. 1, 1908	Nov. 1, 1909	Nov. 1, 1910	Nov. 1, 1911	Nov. 1, 1912	Nov. 1, 1913
	253	328	337	416	460	533	577
(2) Undergraduate students in the colleges of letters and sciences (including engineering)	2,460	2,538	2,745	3,033	3,308	3,753	4,325
Total	2,713	2,866	3,082	3,449	3,768	4,286	4,902
B. The colleges in San Francisco:							
(1) Law	65	95	112	102	116	97	79
(2) Medicine (3rd and 4th years only)	26	8	11	16	18	19	31
(3) Dentistry	69	56	57	59	75	89	90
(4) Pharmacy	41	69	78	85	78	87	114
Total	201	228	258	262	287	292	314

TABLE 5—(Continued).

C. The Los Angeles Dept. of Medicine (In 1909-10, 2nd, 3rd and 4th years; in 1910-11, 3rd and 4th years.)*

Total students in all colleges.....	2,914	3,094	3,384	3,745	4,074	4,585	5,216
D. The summer session	('07) 522	('08) 661	('09) 819	('10) 1,051	('11) 1,981	('12) 2,275	('13) 2,363
Gross total	3,436	3,755	4,203	4,796	6,055	6,860	7,579
Deduction for all duplicates....	175	139	240	287	331	480	543
Net total	3,261	3,616	3,963	4,509	5,724	6,380	7,036

NOTE.—The foregoing table does not include students in the following courses of instruction: University Extension, San Francisco Institute of Art, The University Farm School, Short Courses in Agriculture, Correspondence Courses at Davis, Farmers' Institutes, Wilmerding School of Industrial Arts.

* Students in medicine (1st and 2nd years included in colleges at Berkeley).

Graduate	9	8	13	10	16	24	42
Undergraduate	4	10	20	21	35	58	46
Total	13	18	33	31	51	82	88

TABLE 6A.—Graduate students at Berkeley, classified by colleges,
October 1, 1913.

GRADUATE STUDENTS IN THE COLLEGES AT BERKELEY

NOTE.—In the columns showing the number of students, the upper left-hand figures refer to men, the lower to women; the figures on the right side are totals.

Letters	44	
	56	100
Social Sciences	69	
	107	176
Natural Sciences	71	
	61	132
Commerce	2	
	0	2
Agriculture	14	
	4	18
Mechanics	6	
	0	6
Mining	5	
	0	5
Civil Engineering	6	
	0	6
Chemistry	23	
	4	27
Medicine (1st and 2nd years)	32	
	10	42
Jurisprudence	57	
	6	63
Total	329	
	248	577

TABLE 6B.—Undergraduate students at Berkeley, classified by colleges
October 1, 1913.

UNDERGRADUATE STUDENTS IN THE COLLEGES AT BERKELEY

NOTE.—In the column showing number of students the upper left-hand figures refer to men, the lower to women; the figures on the right side are totals.

College	Seniors		Juniors		Sophomores		Freshmen		Specials		At Large		Total
Letters	10		6		20		20		6		5		67
	27	37	15	21	21	41	44	64	5	11	0	5	112 17
Social Sciences	79		68		100		128		30		5		410
	150	229	194	262	224	324	297	425	57	87	30	35	952 136
Natural Sciences	132		110		167		183		22		17		631
	101	233	126	236	139	306	167	350	17	39	11	28	561 119
Commerce	41		64		61		81		13		6		266
	1	42	3	67	3	64	3	84	1	14	0	6	11 27
Agriculture	91		85		112		150		27		15		480
	4	95	7	92	7	119	8	158	3	30	1	16	30 51
Mechanics	68		63		74		116		26		4		351
	0	68	0	63	0	74	0	116	0	26	0	4	0 35
Mining	37		22		21		38		3		1		122
	0	37	0	22	0	21	0	38	0	3	0	1	0 12
Civil Engineering	37		51		55		79		19		4		245
	0	37	0	51	0	55	0	79	0	19	0	4	0 24
Chemistry	8		13		9		21		8		2		61
	0	8	1	14	2	11	1	22	0	8	0	2	4 6
Medicine	0		0		10		30		0		0		40
	0	0	0	0	0	10	6	36	0	0	0	0	6 4
Totals	503		482		629		846		154		59		2673
	283	786	346	828	396	1025	526	1372	83	237	42	101	1676 434
Deduct for duplicates in					2		17						19
Natural Sciences and Medicine					0	2	5	22					5 2
Total—Men	503		482		627		829		154		59		2654
Women....	283	786	346	828	396	1023	521	1350	83	237	42	101	1671 432

TABLE 7.—Degrees conferred, 1904–1913.

NOTE.—Figures for 1913 cannot be completed before December 23, 1913.

DEGREE	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
L.L.D.	{ 0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	1 0 1	9 0 9	-----	5 0 5	5 0 5
J.D.			2 1 3	3 0 3	6 0 6	7 0 7	7 1 8	8 1 9	10 1 11	10 1 11
Ph.D.	{ 5 0 5	4 0 4	6 0 6	4 0 4	4 0 4	10 0 10	4 1 5	5 1 6	13 2 15	8 2 10
M.A.	{ 4 1 5	4 5 9	7 7 14	5 4 9	9 3 12	7 10 17	7 11 18	5 12 17	4 20 24	3 13 16
M.L.	{ 3 7 10	2 3 5	1 9 10	8 3 11	9 13 22	9 11 20	7 16 23	5 16 21	9 15 24	3 14 17
M.S.	{ 4 2 6	5 3 8	10 0 10	9 4 13	2 3 5	12 10 22	20 5 25	27 8 35	26 9 35	37 11 48
Number of higher degrees	{ 16 10 26	15 11 26	26 17 43	26 11 37	30 19 49	46 31 77	54 34 88	50 38 88	67 47 114	66 41 107
A.B.	{ 17 47 64	14 37 51	18 41 59	10 22 32	14 29 43	10 17 27	8 31 39	7 26 33	11 25 36	18 19 37
S.L.	{ 28 130 158	36 108 144	44 131 175	44 90 134	33 128 161	44 111 155	49 108 157	41 113 154	42 114 156	39 102 141
Ph.B.	{ 0 1 1	0 0 0	1 1 2							
Nat. Sci. ...	{ 13 26 39	16 20 36	17 19 36	7 13 20	13 34 47	19 16 35	34 20 54	37 34 71	70 61 131	65 58 123
Commerce	{ 6 0 6	12 1 13	24 0 24	16 0 16	18 0 18	14 0 14	22 1 23	22 1 23	21 0 21	27 0 27
Agriculture	{ 5 2 7	6 2 8	13 0 13	9 1 10	13 0 13	21 1 22	21 3 24	22 0 22	40 0 40	33 2 35
Mechanics	{ 31 0 31	20 0 20	21 0 21	36 0 36	42 0 42	26 0 26	45 0 45	26 0 26	36 0 36	27 0 27
Mining	{ 30 0 30	22 0 22	41 0 41	43 0 43	35 0 35	26 0 26	27 0 27	44 0 44	26 0 26	20 0 20
Civil Eng...	{ 18 0 18	19 0 19	33 0 33	31 0 31	20 0 20	34 0 34	27 0 27	24 0 24	31 0 31	30 0 30
Chemistry	{ 15 6 21	14 2 16	8 2 10	5 0 5	6 2 8	3 1 4	5 1 6	9 0 9	7 0 7	10 0 10
Number of bach- elor's degrees {	163 212 375	159 170 329	220 194 414	201 126 327	194 193 387	197 146 343	238 164 402	232 174 406	284 200 484	269 181 450
L.B.	{ 20 1 21	19 1 20	15 1 16	28 0 28	14 0 14	14 0 14	23 0 23	19 0 19	28 1 29	22 0 22
J.D.	{ 25 3 28	16 2 18	17 2 19	21 4 25	15 1 16	6 1 7	7 4 11	5 1 6	10 1 11	11 1 12
D.S.	{ 44 1 45	40 0 40	22 2 24	18 0 18	20 0 20	15 0 15	16 0 16	10 0 10	15 0 15	20 0 20
Ph.G.	{ 18 5 23	36 1 37	24 2 26	24 2 26	10 1 11	18 1 19	27 2 29	30 2 32	31 0 31	27 2 29
Pharm.B.	{ 0 0 0	0 0 0	3 0 3	0 1 1	1 0 1	0 0 0	1 0 1	3 1 4	2 0 2	0 0 0
Number profes- sional degrees {	107 10 117	111 4 115	81 7 88	91 7 98	60 2 62	53 2 55	74 6 80	67 4 71	86 2 88	80 3 83

*Ph.G. discontinued and replaced by Ph.C. in and after 1905.

TABLE 8.—Number of accredited schools each year, since the first accrediting of schools in 1883-84.

	1883- 84	1884- 85	1885- 86	1886- 87	1887- 88	1888- 89	1889- 90	1890- 91	1891- 92	1892- 93
Number public high schools accredited	3	4	6	6	6	7	11	17	24	30
Number private secondary schools accredited	0	0	0	0	1	2	2	6	7	10
Total number schools accredited	3	4	6	6	7	9	13	23	31	40
<hr/>										
	1893- 94	1894- 95	1895- 96	1896- 97	1897- 98	1898- 99	1899- 00	1900- 01	1901- 02	1902- 03
Number public high schools accredited	39	43	52	61	66	76	87	93	93	100
Number private secondary schools accredited	9	14	15	15	16	15	23	23	22	18
Total number schools accredited	48	57	67	76	82	91	110	116	115	118
<hr/>										
	1903- 04	1904- 05	1905- 06	1906- 07	1907- 08	1908- 09	1909- 10	1910- 11	1911- 12	1912- 13
Number public high schools accredited	104	99	106	114	122	140	147	155	172	181
Number private secondary schools accredited	20	21	23	23	25	30	31	31	31	32
Total number schools accredited	124	120	129	137	147	170	178	186	203	213

NOTE.—Schools authorized to recommend though not regularly accredited: 1909-10, 34; 1910-11, 26; 1911-12, 35; 1912-13, 40.

TABLE 9.—Enrollment of graduate students.

	1903- 04	1904- 05	1905- 06	1906- 07	1907- 08	1908- 09	1909- 10	1910- 11	1911- 12	1912- 13
Total number of graduate students	269	243	351	281	324	403	425	501	578	648
Number from University of California	137	130	240	159	177	236	214	258	307	342
Percentage of graduate students from University of California	50.9	53.4	68.3	56.4	54.6	58.5	50.3	51.4	53.1	52.8
Percentage of graduate students from other institutions	49.1	46.6	31.7	43.6	45.4	41.4	49.6	48.5	46.9	47.2
Total number of colleges and universities represented	71	71	79	67	81	90	98	120	122	152
Number of graduate students taking higher degrees (masters' and doctors' degrees not including juris doctor)	29	28	35	34	49	61	66	79	99	103
Percentage of graduate students taking higher degrees (masters' and doctors' degrees not including juris doctor)	10.8	11.5	9.9	12.1	15.1	15.1	15.5	15.7	17.1	15.9
Number of graduate students receiving Ph.D. bachelor's degree	3	4	6	5	4	10	5	6	15	10
Number of graduate students receiving the LL.B. in the academic departments	18	20	14	8	3	7	8	7	7	10
Number of graduate students taking juris doctor in the academic departments	3	2	.....	.....	.....	.....	.....	.....	.....	.....
Number of graduate students taking juris doctor in the academic departments	3	3	6	7	6	8	13	11

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The following abbreviations are used: agr. (agriculture), agrl. (agricultural), Am. (American), anthrop. (anthropology), assn. (association), bldg. (building), Cal. (California), cfd. (compared), co. (county), dept. (department), govt. (government), lab. (laboratory), libr. (library), L. O. (Lick Observatory), L. A. (Los Angeles), N. S. G. W. (Native Sons of the Golden West), no. (number), prof. (professor), pub. (publish or published), publ. (publications), repd. (represented), S. F. (San Francisco), U. C. (University of California), U. S. (United States).

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1913-14. No. 7

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2. Circular of Information, Academic Colleges. August.
3. Medical School Announcement, 1914-15. September.
4. Catalogue of Officers and Students. September.
5. University Extension, Bureau of Correspondence Instruction. October.
6. Register, 1913-14. November.
7. President's Annual Report, 1913-14. December.

UNIVERSITY OF ILLINOIS
15 JAN 1915

UNIVERSITY OF CALIFORNIA

Annual Report of the President of
the University on behalf of the
Regents to His Excellency the
Governor of the State of California

1913-1914

UNIVERSITY OF CALIFORNIA PRESS

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REPORT OF THE PRESIDENT OF THE UNIVERSITY

UNIVERSITY OF CALIFORNIA,

BERKELEY, December 15, 1914.

To His Excellency Hiram W. Johnson, Governor of the State of California,

SIR: The number of students in the University is approximately 8200. This figure does not include any of the following departments: the Farm School at Davis (attendance 264); the short courses in agriculture (attendance 134); the San Francisco Institute of Art (attendance 335); the Wilmerding School of Industrial Arts in San Francisco (attendance 224); University Extension class instruction (enrollment 786); University Extension in correspondence instruction (enrollment 2417); correspondence courses in Agriculture (enrollment 8800); Farmers' Institutes (attendance 37,000); not less than 58,000 persons were reached directly by the instruction of the University during the past academic year.

The total number enrolled in the regular courses at Berkeley for the year 1913-14 was 5349, being 682 (or fifteen per cent) more than the preceding year, and double that of the tenth preceding year (1903-04). Including the professional schools, the total enrollment in regular courses for 1913-14 was 7526. The number of undergraduates was 4703, being 609 (also fifteen per cent) more than the preceding year.

The percentage of women in the departments at Berkeley, which ten years ago was 41.6 per cent, was last year 38.6 per cent., i.e., there were 3285 men and 2064 women. If we reckon only the undergraduates, the proportion of women was also about 38 per cent, i.e., 1787 women and 2916 men enrolled.

Regarded year by year, the distribution of students among the different colleges has been reasonably stable, but a review

for a ten-year period reveals certain well-determined tendencies. Thus agriculture shows of all for the decade 1904-14 the most pronounced relative growth. In the year 1904 we find it enrolled 4.19 per cent of all undergraduates, but in 1914, despite enormous growth of the University meanwhile, its students made up 11.74 per cent of the whole attendance. For the same period the so-called general courses (Letters, Social Sciences, Natural Sciences, and Commerce) are found to have grown from sixty-three per cent to seventy per cent. Meanwhile the technical group, though its actual enrollment has increased, has declined relatively to the whole body of undergraduates from twenty-nine per cent to sixteen per cent. The greater part of this decline is, to be sure, chargeable to mining engineering, owing partly to conditions existing within the profession of mining and causing a lessened demand temporarily for mining engineers. But the fact remains that mechanical, electrical, and civil engineering themselves have failed to show a relative increase; on the contrary, they have shown a small relative decline. The fundamental reason for this decline is to be found chiefly in the increased severity of the engineering courses based upon the steadily enhancing demands made by the community upon the standards of training and equipment in the engineers who are to serve it. There seems to be no place in the world for a poor engineer. When students come to choose their course of study on entering the University they are not so frequently as formerly misled into selecting a technical course on the ground that they have always had a certain interest in machinery, or with a view to avoiding severe mental tasks and substituting for them the toil of the hands. It is furthermore to be noted that many students who ten years ago would have selected a technical course may now find the training which they want in one or another of the departments of natural science, such as geology, chemistry, physics—departments which in recent years have developed in their instruction important economic-technical relations, thus economic geology represents as important a specialty for a mining engineer as metallurgy. One student may concentrate upon one and another upon the other. Concentrating upon geology,

he would be enrolled in natural sciences rather than in mining.

In the Graduate School were registered the past year 710 students, as against 578 in 1912 and 648 in 1913. About one-half of these are graduates of the University of California. The remainder represent as graduates 145 different institutions. In 1913 the attendance in the Graduate School was about equally divided between men and women. In 1914 there were about thirty per cent more men than women. This indicates that women who are taking the one graduate year at the University with a view to obtaining a teacher's certificate no longer constitute the prevailing clientage of the Graduate School. Similar value has the observation that the proportion of those who are candidates for higher degrees has risen from ten per cent ten years ago to twenty-one per cent, or in absolute figures from 29 to 149. This presents probably the fullest measure of the real growth of the Graduate School. Under the direction of Dean Leuschner, the Graduate School is taking on more definiteness and firmness of organization. In earlier years it was not ripe for such organization.

The relation of the income of the University to the work it has to do can best be understood by a comparison of the income over against attendance in other large state universities whose conditions are most nearly like our own. I subjoin a table prepared by Mr. Victor H. Henderson, Secretary of the Board of Regents, which presents such a comparison. The figures were obtained by Secretary Henderson through direct correspondence with the universities involved, and the effort has been made to have the figures represent the same basis, so as to be strictly comparable. The numbers of the student attendance are prepared and published annually by *Science* and by the *Boston Transcript*.

Universities	Number of students	Total income from State	Income from State for building operations	Income from State for maintenance	Total income from all sources
California	8,180	\$1,573,753	\$334,716	\$1,239,036	\$2,527,000
Illinois	5,664	2,286,500	650,000	1,636,500	2,778,387
Minnesota	4,484	2,466,293	977,829	1,488,464	3,037,032
Michigan	6,319	1,363,834	325,234	1,038,600	2,202,860
Wisconsin	6,696	2,153,856	343,567	1,810,289	3,093,254

Of first importance are the figures representing income derived from the State. It will be noticed that the University of California stands first in the receipt of income from sources outside the state government. Even with the help of these, however, the University of California lags behind and in terms of state support lags far behind Illinois, Minnesota, and Wisconsin, which as they each support an agricultural school resemble us most closely in their condition and needs. They receive from their respective states about forty per cent more than we do, and this in spite of our much larger number of students. In whatever way we reckon attendance, whether by undergraduates, or by undergraduates plus graduates, or as above by grand totals including professional schools and summer session, our students are much the most numerous and our burdens much the greatest. The gist of the matter is that among the state universities nearest like us we have the greatest number of students and the smallest amount of money.

The Comptroller's report herewith appended (see p. 9) shows that the expenditures of the University for the year 1913-14 for education and research, as distinguished from administration and operation on the one hand, and buildings and improvements on the other has been \$1,473,425.06.

This sum is by no means all available for the academic instruction at Berkeley, generally known as the University—indeed, scarcely half of it. It includes the support of various institutions throughout the State which have been committed to the care of the University and which while in themselves essential to the idea of the University and naturally and properly merged in it, are characterized by purpose and method different from that of the academic departments in the strictest sense. To obtain from the total of \$1,473,425 expended on education and research, the amount available for the ordinary college instruction, we may subtract the following amounts, representing expenditure for maintenance and for salaries in the respective institutions, expenditure for building operations being, of course, omitted:

Lick Observatory	\$35,924.24	
Wilmerding School	29,638.25	
Dental School	22,799.84	
Medical School	\$77,702.64	
Teaching Hospital	99,815.20	
<hr/>		
Total for Medicine	177,517.84	
Scripps Institution (La Jolla)	24,178.70	
Citrus Station at Riverside and		
Whittier	\$43,397.92	
Davis School	115,100.44	
School of Agriculture (including a great		
variety of activities)	260,709.78	
<hr/>		
Total for Agriculture	419,208.14	
<hr/>		
Expended on these various institutions	\$709,267.01	
Balance expended for education and research in academic		
courses in limited sense	764,158.05	
<hr/>		
	\$1,473,425.06	

The total expenditure for education and research in agriculture from originally appropriated moneys has been, as noted above, \$419,208.14. To this amount must be added the farm sales, which have been turned back into use for maintenance and equipment well to exceed \$100,000,* so that the total expenditures of the department for education and research have been not less than \$520,000. This money has been spent in the interest of the State's well-being. On this score there can be no cavil. It has been so well spent and so surely to the satisfaction of the people of the State that the Legislature will increase rather than decrease the appropriation for this purpose. All the more must we be convinced that the allowance for the ordinary academic courses (\$764,158), the allowance which must serve for the mass of instruction for nine-tenths of the students at Berkeley is not excessive—on the contrary, it represents at present the chief area of poverty in the University's finances. It must furthermore be remembered that the maintenance of

* The total of such sales for the year 1913-14 was \$150,167.54.

the Library and other like institutions is chargeable against this sum and allowance.

It is a fact that for the last year the increased appropriations which we have made for medicine have borne most heavily upon the financial status of the University proper through narrowing down its support. Agriculture, except for its allowance of approximately \$40,000 from the general fund, has not robbed any other department. Its financial supplies have come directly from the State by special appropriations. It is evident, however, that medical instruction must be supported and abundantly supported. Its relation to the fundamental well-being of the community is too immediate that there should be any question about this. The rapid development of medical science within the last decades has made the highest standard of medical education the only standard concerning which we should think or plan. We desire that the Medical School should be expanded and rapidly expanded. The only question involved is one of giving to every part its due, and we cannot afford to consider any expansion at any point which shall cripple or hamper those departments which have to do with the instruction of the great mass of the students. There may be 130 students in medicine, 800 in agriculture: it is for the great mass of the 5000 others that I am for the moment pleading.

A significant contribution to the welfare of the mass of the students assembled at Berkeley was provided by the people of the State at the last election. By a majority of 175,688, i.e., by nearly a two-thirds vote, the people by the direct expression of their will provided the University with \$1,800,000 for the erection of buildings on the campus at Berkeley, proportionate to the needs created by the University's growth. The act is significant in that the University, having been founded and year by year supported by the legislative, and later confirmed by the Constitution, is now frankly adopted through recourse to the plebiscite by the people themselves. Every section of the State gave us its voice. This is now beyond peradventure the University of California. The action of the people has further significance as evidence that the higher ideals and interests of the

commonwealth may safely look for sympathy and understanding not only to special boards of trust or selected representatives, but straight into the face of the people. We to whose care as regents and teachers the University is committed accept this act of the people as an outstretched hand of approval and encouragement, but much more must we recognize it as involving an obligation laid upon us to greater and more unselfish zeal in the service of our beloved State. Every member of the University—regents, teachers, students, alumni—all join in an expression of deep, heartfelt thanks to a generous people. It is our pride and honour to labour in the interest of such a people—, and we cannot help thinking first of those men and women far back among the hills and down in the south country who gave us their votes and sent us their blessing.

The buildings which it is proposed to erect with the proceeds of the bonds that have been voted are the following: (1) a building to replace North Hall as a recitation hall, probably on the site and in place of the building which in the official plan is labeled “The Library Annex”; (2) the completion of the Library building; (3) the first wing of Agriculture Hall, being the second building of the great connex of buildings devoted in the plan to agriculture; (4) the first unit of the future chemical laboratory.

(1) The recitation hall would become, if the available site is entirely utilized, a building about two hundred feet square. Nothing short of this is likely to meet at all the dimensions of our classes and our needs. Once that building has been built it ought to provide for lectures and recitations in the departments which do not live by laboratories, such as history, classics, modern languages, literature, English, mathematics, economics, government. I trust that North Hall will be removed the moment this building is completed. I have, however, my apprehensions, inasmuch as I have noted that with us temporary buildings acquire great permanency. The new recitation hall must provide something which we have not at all on the grounds, namely, lecture rooms to accommodate 750 to 1200 persons. We have at present on the grounds two rooms which accommodate 500 each. There are, however, a number of freshman classes, such as botany, his-

tory, hygiene, which already require seats for over 500. It is desirable that in the center of the building a large lecture room, or theatre, should be provided which can hold as many as the dimensions of the building will allow. I fear that at the outside this cannot exceed 2000. Every fortnight when our University Meeting assembles we feel grievously the need of a room in which all our students can be assembled at once. The only place at present is the Greek Theatre and that is not available for the University Meetings, because of its distance and consequent intrusion upon available time. It will be found eventually necessary to erect a great university auditorium. The official plan places that auditorium in the neighborhood of the Greek Theatre and to the northwest. We cannot foresee what may in a decade become the accessible center of the University, but it would seem at present that a location for the auditorium nearer the Telegraph avenue entrance would be preferable. The new hall will be expected to shelter a great variety of smaller classrooms sufficient for classes of from 50 to 200. The building must be expected to shelter, if indeed, at any one time not less than 6000 students. Despite its dimensions, it will fall short of becoming for a college of 5000 students what old North Hall was to a college of 500 students.

The addition to the Library building will involve building up the environing rim of the stack, thereby completing the rooms intended as seminary rooms and special studies. The full capacity of the present book stack, approximately 300,000 volumes, has now been reached. By carrying up the present stack to the level of the roof we shall provide space for another ten years' growth and meantime the southern portion of the court can remain open to the air.

The additional unit of the Agriculture Building to be constructed will lie to the west and northwest of the present building, facing west, and half enclosing the garden and court which is ultimately to form the wide-stretching center and interior of the completed connex of buildings.

The first unit of the new chemical laboratory will probably be placed between the present laboratory and East Hall. It is

the present plan gradually to encircle the old laboratory, using it while the new laboratory is making its advance. A temporary building built last summer for housing the freshman classes in chemistry has proved itself most admirable in plan and equipment. That building, standing as it does at the farthest north-east limits of the territory assignable to chemistry, is likely to remain longest in place and use.

The question of supplying shelter for the increasing numbers of students that flock to Berkeley is continually arising in one form or another. Increasing density of population, by raising the ground rent steadily increases the expense of rooms for individual students and house clubs. It has, of course, also its effect upon the price of board. Board and lodging in most of the clubs costs about thirty dollars a month. Several pay thirty-five and one or two forty. The numbers in each case catered to and the prevailing standard of business management unquestionably make the cost of board higher than it need be. A college commons would undoubtedly hold the price of board down to twenty dollars, and a dormitory would probably hold the price of room rent down to six to eight dollars a month. We have thus far treated this matter by the *laissez faire* method. The rise of boarding houses and clubs, so long as college attendance was small and the growth slow and so long as rents were cheap, sufficed in a reasonable way to meet the demand. The growth, however, both of city and University has created artificial conditions which we may not avoid the responsibility of meeting. In some form or other within the next few years the Regents will be obliged in the interest of the ordinary well-being of the students to face the questions involved in the matter of student residence. We should be very glad to be spared the various troubles that arise not only in financing the building of dormitories, but in caring for their government and maintenance, and especially in dealing with the humanly delicate questions of food. The housing problem is not only one of economy, but involves consideration of the social education of the student and the atmosphere of unity in the University. In the case of the women students, the dormitory need can be very simply stated. Women as a general thing,

whose homes are not in one of the Bay cities, prefer to live in groups. It is not agreeable for a woman student to find herself in an isolated room in a boarding house, yet many of them are obliged to do it. The exact condition as to the housing of undergraduate women students, as far as numbers can set them forth, can be learned from the following table prepared by the Dean of Women, Miss Lucy Stebbins:

UNDERGRADUATE WOMEN STUDENTS, 1914

No. at Home—	Sophomores, Juniors, Freshmen and Seniors		Totals	Percentage
	Freshmen	Sophomores, Juniors, and Seniors		
San Francisco	42	50	92	5%
Oakland	107	154	261	13½%
Berkeley	204	350	554	29%
Alameda	12	31	43	2%
Miscellaneous .....	.....	5	5	½%
Total	365	590	955	50%
No. Boarding—				
Approved	178	158	336	18%
Not approved	*46	158	304	11%
Housekeeping	34	64	98	5%
Total	258	380	638	33%
No. in organizations	42	241	283	15%
Total	42	241	283	15%
No. working	17	24	41	2%
Total	17	24	41	2%
Grand total	682	1235	1917	100%

From this table it appears that of 1917 undergraduates just about one-half have their homes about the Bay and live in them. Two per cent of the whole number work for their board and lodging and of course live where they work. Five per cent of the whole number in groups of two or three keep house for themselves. Fifteen per cent lodge in clubs and sororities. The

* Living with friends whose houses may be approved.

remaining twenty-nine per cent, i.e., 540 women, must find protection in boarding houses or lodgings. It is through the incessant activity of the Dean of Women that the number of those residing in approved rooms and boarding houses is as great as it is. Practically all of the freshmen are reached and cared for through the Dean's office and practically all who are not otherwise cared for are found in approved boarding houses. A private dormitory called College Hall, located at the corner of Hearst and La Loma avenues, provides shelter for over eighty women, mostly freshmen. It is, however, entirely a private undertaking and not as yet subject to University direction. Even after subtracting this number there remain about 460 women students of the University who live in boarding houses. All of these ought to be housed in groups of 30 to 50. If we were prepared to building as a university venture a women's dormitory or dormitories, then we should deal with this number in eight groups of 50, and it would matter little whether these were under one roof or in eight adjoining houses. These eight houses are, however, an unquestioned pressing need. It would always be better if private undertaking could furnish these, provided that they were managed in co-operation with the University authorities.

It is likewise, though in somewhat remoter demand, desirable that the freshman men who cannot find a place in any of the clubs should be given housing in dormitories. University capital is probably not available for the building of such dormitories, as their income would presumably be smaller than that which the Regents desire to earn upon trust funds. Private capital, on the other hand, has not as yet shown itself ready to provide such buildings properly equipped and properly directed. The only practical help has come to us through the clubs and fraternities, as is the case with the sororities also. These organizations now exist chiefly for the purpose of providing shelter and a certain measure of society and home life. There are now in the University 34 men's fraternities, 13 women's fraternities, 13 men's clubs, and 9 women's clubs, making 70 in all. There is no real difference between a club and a fraternity. These 70 organizations contain at present 1779 members. This number

is thirty-nine per cent of the undergraduates, i.e., two in five of the undergraduates belong to a club or fraternity. Twenty-three of these organizations have attained so stable a basis that they have built for themselves houses to accommodate their members during the college course. The amount of money so invested is estimated at fully \$300,000. The construction has been financed either through an incorporation of the society, issuance of bonds or stock to alumni and undergraduate members and gradual repayment by eventual purchase of the shares or bonds, or by a payment each month by the chapter occupying the house of an amount sufficient to cover the interest and a small amount to apply on the principal. No mortgage has ever had to be foreclosed nor has a house building scheme ever failed through lack of proper financial backing. It is the aim of every fraternity and club to own a house and lot for itself. Those who do not own houses rent them at \$75 to \$150 per month. The club supplies its own furniture, dishes, linen, etc. In estimating the value of the fraternity house as a solution of the housing problem it is well to admit at the start that the influence of the fraternity house upon scholarship in the past seems not to have been good. This seems to have been due chiefly to unregulated behavior in the houses, which were therefore noisy and disorderly. There were no house rules to prevent, for instance, the piano jangling all through the evening when others might wish to study. I have good reason to believe that during the last two years members of the fraternity houses have brought about radical changes in regard to order. The house rules now are strict and mostly are obeyed. Five of the fraternities, whose record for scholarship is also low, have recently achieved distinction by disturbing the neighborhood unduly. They do this at the expense of the good name of the whole body of fraternities. This is coming to be recognized, and the five are coming to feel the burden of public sentiment against them. I have not thought it best to mention the names of these five until I have made sure that other methods cannot work out a less violent correction, especially as mentioning the name of the fraternity may involve a certain minority of the members of these five bodies in an obloquy they have not deserved.

Each fraternity is given each term its rank in scholarship among the whole number of fraternities. Beginning with January next, there will be published in alphabetical form the names of the fraternities whose scholarship averages for the preceding half-year have equaled or exceeded the mean scholarship record for that period of all the fraternities, considered as a group. This is but one step toward the detailed publication of the records of each fraternity and club on the campus. Since the policy of grading the fraternities has been adopted it is noticeable that as a whole the fraternities have advanced in scholarship relative to the whole body. They have ample room, however, for further achievement. The fraternities now enforce reasonable and proper house rules. For instance, it is the invariable custom that an underclassman, i.e., a freshman or sophomore, may leave the house only one night during the week and either one or two nights at the week end, depending upon his standing in his studies. On the other nights it is expected that he will stay at home and study in his room; and there are fraternity officials whose sole duty it is to see that these rules are obeyed. In other fraternities some award like a cup or a scholarship is offered for the best student in a particular semester. Furthermore, it is true that on the campus among the students a fraternity is nowadays surely judged by the seriousness and real worth of its membership as exemplified along scholastic lines. In the past fraternities have undoubtedly devoted themselves too much to student activities. These, indeed, were the only things which yielded a ranking. The scholastic side of the University had become for a while so squeamish as not to make public the grading of students, as though it were too great a concession to competition for the intellectual life to make. Furthermore, fraternity men have been inclined to enter those student activities, such as journalism and debating, not always of their own volition, but rather through the urging of their upperclassmen, who want them to gain glory for the name of the fraternity.

A very great moral gain has been made by the fraternities in these last years in prohibiting alcoholic drinks altogether from their houses. There is only one fraternity left which has no rule

on that subject. There are four which still, so far as I know, admit wine to the initiation banquet. The others forbid it altogether. It is very much to be desired that these fraternities should have the continued interest and counsel of their alumni members. Some day I hope it will be the rule that each of these fraternity houses will have a graduate residing with them in something like the capacity of the tutor and fellow at an English college. It would be well if each chapter had an average membership above 30. This would make it possible not only to enforce house rules more regularly, but it would keep down the expenditures for table and upkeep. The administration of the University has always favored the formation of new clubs as instruments for providing for the students shelter and food under desirable social auspices. Friends of the University have donated moneys which we are using for a student house club loan fund. If a group of students wish to form a house club they apply for money from this fund wherewith to furnish their house. The loan is repaid into the fund by installments and other groups come forward to avail themselves of the fund. These clubs or fraternities may not in every regard be just what we would like if we were beginning utterly anew, but if they were utterly destroyed we should still have to meet the question of providing shelter and home for our students. So we have thought it best to recognize and utilize the existing clubs and fraternities rather than to oppose and embarrass them. The Dean of the Lower Division holds relations to a board composed of one representative from each club or fraternity. Before this board are brought questions affecting the whole body of the organizations. Furthermore, in dealing with a member of one of these organizations in the matter of deficient scholarship or discipline, the Dean of the Lower Division very frequently lays the matter first of all before the representative of the organization and frequently leaves it to him as representing the power of the body to deal with the case. By recognizing and utilizing the organizations in ways such as this we have found the means of making these bodies a help rather than a hindrance in the regulation of the University. They are coming to be that more and more every year. The

great mass of them have a pride in their own good name and a desire to co-operate with the University authorities.

The University Infirmary continues its high usefulness and helpfulness toward the students. The foresight of the man who founded it as to its needs and its place have been singularly verified in experience. This Infirmary is a monument to the heart and vision of Dr. George Frederick Reinhardt, who passed from among us June 7, 1914, at the age of forty-five. He recognized the need for an institution representing socialized medicine here in the midst of this large body of students. Therein he saw an opportunity to demonstrate its full applications. To this body of students was given medical aid, including shelter, nursing, food, medicine, doctor. For moderate charges, or when the student was needy no charge at all, surgery was provided. During recent years also examination, treatment of the eyes, and prescription for glasses was provided. Next year it had been his purpose, and his purpose must be carried out, to provide for the students at moderate fees, practically at the cost of the professional labor, treatment of the teeth. Bad health of the students is frequently due to teeth that have not been properly cared for. Proper dentistry is often beyond the reach of students who cannot afford a large expenditure at one time. It was from the the beginning a constituent part of Dr. Reinhardt's view regarding the Infirmary that medical work should be done by a medical board of its own and that physicians outside should not be brought in except as desired by the patient or his friends for consultation. Our experience during the years of the development of the Infirmary amply prove the founder's wisdom in this regard. It was a further feature of Dr. Reinhardt's plan that the community for which the Infirmary existed should be held together under this institution by the lectures in preventive medicine which constitute the course in hygiene. He molded these lectures and the Infirmary together into one body of influence. Dr. Reinhardt was one of the most unselfish men that ever lived, and in him the students of the University of California have lost one of the best friends they ever had.

During the past year there was conducted in the faculty a discussion concerning the reorganization of the so-called culture colleges, i.e., Letters, Social Sciences, and Natural Sciences. Opinion was much divided. Approximately half of the faculty desired an amalgamation of the three colleges and the giving of only the degree A.B. The other half stood in the main by the existing order. Finally on May 7th consideration was obtained for a proposition whereby the three colleges should be consolidated into one "course in Arts and Sciences," this course being identified in terms of the Organic Act as the "College of Letters." This proposition was finally adopted unanimously. Under this College of Letters there were to be maintained five courses, namely, in Letters, in Social Sciences, in Pure Science, in Fine Arts, and in the Humanities, including 30 units of Greek and Latin, each of these courses to have its distinctive degree. This action was presented to the Board of Regents for its approval. The Regents adopted the recommendation of their Committee on Courses of Instruction and concurred with the recommendation of the Senate as to the consolidation, but withheld their approval of the increase in the number of degrees, and indeed expressed the opinion that a multiplicity of degrees which was "not in accord with the best practice of American universities and not for the best interests of the University," should be abandoned and that the "wisest policy for the University to pursue would be to grant the degree of A.B. to all graduates of the proposed consolidated College of Letters, no matter which of the five proposed courses within the College of Letters should have been chosen and pursued by the candidate for the degree," and further that in the opinion of the Board of Regents the degree of B.S. should continue to be given to candidates who have completed courses which in their general nature are in the field of applied sciences. On September 9th the Academic Senate adopted the principle of a single college and a single degree A.B. Determination of the name which the consolidated college should bear is now in abeyance pending legal determination as to whether it would be possible, in accordance with the recom-

mendation of the Academic Council, to use the name "College of Letters and Science," or whether the original name for the all-embracing college, i.e., "College of Letters," must be preserved. The blending of the old colleges of general culture was inevitable. The frontiers between the three were artificial and did not represent, and could not, despite diligent effort in that direction, be made to represent, such real differences of education in substance and manner as should warrant variety of degrees. The difference of curriculum between these colleges, so far as any existed, was found in the studies preparatory to entrance rather than in the later and characterizing years of the curriculum. The courses which the three colleges tried to represent did not in reality exist. Now that they are consolidated, it will be possible to outline, in the resulting college, courses which correspond to real facts and real interest. For several years the culture colleges have had but one Dean. The technical colleges are now discussing the propriety of having for themselves but one Dean. Community of interest had already brought the technical colleges very close together and that approximation was embodied in the Committee of the Engineering Division, whose vice chairman was practically Dean of the three colleges. Each college will maintain its separate existence so far as care for its property and oversight of its schedules are concerned. The department of civil engineering in recent years has made most gratifying advances. It is very essential that its summer session, which has proved an invaluable aid to the department, should be given permanency in the occupation of its present site, or be provided with some other site which it can occupy permanently. I am now making special recommendations to the Board of Regents in this direction.

By the death on November 30, 1914, of Professor Samuel Benedict Christy, the College of Mining lost the man who has been at its head since 1885 and who has been connected with it during its entire existence. Since his entrance, indeed, into college in 1871 he has been continuously at the University as student or teacher. He was a sturdy virile character, a man well

recognized and established in his profession, and a loyal servant of the University.

With the election of Dr. George H. Whipple of Johns Hopkins University as the Director of the Hooper Foundation for Medical Research, this new organization entered rapidly upon its work. To its use has been assigned the building at the Affiliated Colleges originally planned for the department of veterinary medicine. The building has proved itself, with relatively slight changes, admirably adapted to the work of the Foundation. Dr. Whipple has already assembled about him a group of collaborators, and the work of research without any delay has gone rapidly forward. At an early date work will be begun on the new Hospital for which \$615,000 of private gifts has been provided. During the year the teaching staff of the Medical School has been notably strengthened and it is the clear and expressed purpose of the Regents to spare nothing in giving the School as an organization for medical research and for the stimulus and training of the highest type of medical practitioner all cordial support. It is expected that we shall without further delay provide full-time instruction, i.e., instruction by men giving their entire time thereto in the clinical branches as heretofore in the lower division branches. At the earliest possible moment the departments of the School of Medicine now located in Berkeley will be transferred to the Medical School in San Francisco. This will be possible when the Hospital is removed from the Medical Building at the Affiliated Colleges and transferred to the new building.

No part of the University has gained more in reach and vigour in the last two years than the department of Agriculture. The variety of the work of that department is set forth in the special report of Dean Hunt to the President of the University.* It is enough if we say here that the department shows its greatest strength on the personal side. Its faculty, than which I know of no better faculty, is composed of young, vigorous men, good teachers and good workers, who are likely to make themselves in

* See "Report of the College of Agriculture and the Agricultural Experiment Station of the University of California from July 1, 1913, to June 30, 1914."

the near future increasingly felt in influence throughout the state and the nation.

I am glad to report that in this year more than all years the University has been able to reach out into touch with the communities and people of the State through the forms of University Extension. Under the department of Agriculture Extension the attendance on Farmers' Institutes has been over 37,000; at the two movable schools held at Modesto and Turlock for instruction to farmers, especially in the handling of dairy herds, the attendance was 2,200; thirteen agricultural clubs have been established in seven counties of the State, with a total membership of 460; agricultural clubs have also been established in eighty-four high schools of the State; the institution of the County Farm Advisor has been established in at least nine counties of the State by co-operation between the University and the county authorities, the latter providing for the expenses of the Advisor. In general University Extension the new organization has been getting rapidly at work during the past year. The newly established Correspondence Instruction yielded paid enrollment for the first six months of 1749, the lesson reports received were 3796, the circular letters written about 6000. In the Bureau of Class Instruction thirty-nine classes report an enrollment of 786. In the Bureau of Lectures at least twenty-five courses of lectures are reported as provided. The Interscholastic Debating League has already found place in seventy-five high schools. The department has been handicapped by the small allowance of funds. By express wish of the Governor in making provision for the University's finances at the last session of the Legislature, the Regents, out of their general funds, undertook to make such provision as they could. For the past year \$10,000 was guaranteed. This seems to be a department which should be cared for by the State under special appropriation. It represents a new and distinct form of education. There is an unquestioned demand for it. Many people of maturity and relative leisure desire the opportunity of intellectual stimulus and there are people who wish by means of extension study to start anew in life. The call for this form of instruction is one which neither the University nor

the State can neglect. It is, however, in its nature special and peculiar and must be specially provided for.

The University is an institution both of teaching and of research. Not only can the two things live together, but it is a question whether either in the best sense can live without the other. The University is the place where the two are combined. Indeed the real character of the University is determined by this combination. Teaching is a great gift. Teaching is an art also which can be cultivated. There are posts in the University at which we must at all hazards have men who possess in the highest and widest degree the art of conveying information and stimulating thought. In the large elementary classes of the lower division, particularly, do we need men who can give perspective in the whole material of the science which is being presented. But even in the lower division, teachers with the years grow dry and stale except as the intellectual life is nourished and freshened by advances made upon new fields of thought and experiment. For the upper division and the graduate courses an essential characteristic of the instruction must for the student, in the great body of his work, take the form of exploration, even though it be restatement and rediscovery. Without doubt the advanced student will take from the University as its real gift the spirit and attitude of weighing evidence, establishing the fact, and determining the application thereof,—of facing the truth, following its lead, and being made free thereby. Those who teach must therefore inspire rather than dictate. What they give must be their vision rather than their knowledge. He who instructs but cannot discover is a sterile teacher. He who is content to discover and never teach surely throttles his own growth. The contagious spirit of research is the real University. The student who has failed to catch, though but for once, the glow of genuine discovery may have been at the University, but he has not been in it.

Respectfully submitted,

BENJAMIN IDE WHEELER,

President of the University.

SUMMARY OF DEPARTMENTAL REPORTS*

Agriculture.—The Department of Agriculture has endeavored, during the year, to keep before it its duty, which is to discover and serve but not to direct. It has been at work on 196 research problems in agriculture. In the annual report of the Director of the Agricultural Experiment Station for the fiscal year ending June 30, 1914, will be found a complete list of these projects. They include such questions as the control of tuberculosis in cattle; the kind, strength, and method of using insecticides in the control of insect pests; the development of practical methods of controlling gummosis in lemons; the study of the results of the freeze of 1913 to enable orchardists to adapt the best methods in case of recurrence; a test of frost protection devices; the use of supplementary feeds in the production of beef (there have been used 2100 head of cattle in these tests); cost of hand milking and machine milking in commercial dairies; feeding experiments with swine; possibility of obtaining cheaper potash and developing a new industry by the utilization of kelp; the best duty of water with a view of preventing both waste and injury through irrigation; the reclamation of alkali lands by flooding and drainage; the study of the nature and control of plant diseases; the development of methods of dry farming; the test of varieties of grains, forage crops, cotton and fruits, including deciduous, citrus, semi-tropical fruits and nuts. The maintenance of soil productivity and the relation of fertilizers and cover crops thereto continue to demand a large share of attention.

The official publications of the Agricultural Experiment Station for the fiscal year are shown below:

	Copies
Report of the College of Agriculture and the Agricultural Experiment Station of the University of California from July 1, 1912, to June 30, 1913, by Thomas Forsyth Hunt.	
Bull. 240. Commercial Fertilizers, by J. S. Burd	20,000
Bull. 241. Vine Pruning in California, Part I, by F. T. Bioletti	30,000
Bull. 242. Humus in California Soils, by R. H. Loughridge	30,000
Bull. 243. The Intradermal Test for Tuberculosis in Cattle and Hogs, by C. M. Haring and R. M. Bell	30,000
Bull. 244. Utilization of Waste Oranges, by W. V. Cruess	15,000
Total	125,000

* For report of Departments of Anatomy, Pathology and Physiology, see pp. 119-121, in the Report of the Medical School beginning on p. 113.

	Copies
Cir. 104. The Amended Insecticide Law, by C. W. Woodworth	2,500*
Cir. 105. Analyses of Insecticides for Users, by C. W. Woodworth	1,000*
Cir. 106. Directions for Using Anti-Hog-Cholera Serum, by J. F. Mitchell.....	25,000
Cir. 107. Spraying Walnut Trees for Blight and Aphis Control, by R. E. Smith	8,000
Cir. 108. Grape Juice, by F. T. Bioletti	8,000
Cir. 109. Community or Local Extension Work by the High School Agricultural Department, by W. G. Hummel	15,000
Cir. 110. Green Manuring in California, by C. B. Lipman	30,000
Cir. 111. The Use of Lime and Gypsum on California Soils, by C. B. Lipman.....	30,000
Cir. 112. The County Farm Adviser, by B. H. Crocheron	30,000
Cir. 113. Announcement of Correspondence Courses in Agriculture, by W. G. Hummel	36,000
Cir. 114. Increasing the Duty of Water, by B. A. Etcheverry	30,000
Cir. 115. Grafting Vinifera Vineyards, by F. T. Bioletti	15,000
Cir. 116. Silkworm Experiments, by C. W. Woodworth	20,000*
Cir. 117. The Selection and Cost of a Small Pumping Plant, by B. A. Etcheverry	30,000
Total	280,500

The farmers' interests are protected by analyzing fertilizers sold within the state, by inspecting insecticides which are used in the fighting of pests on fruit and other crops, and by immunizing hogs against cholera.

Since the foundation of the hog serum laboratory, less than three years ago, the use of serum has saved to the hog raisers of California at least \$325,000. The total appropriation for this work has been \$16,000. The introduction of the intradermal test, upon which the department recently published a bulletin, is believed by veterinarians to be an important step in the control of tuberculosis in cattle and hogs under California conditions. The purpose of the experiments is to work out and demonstrate a system of animal husbandry suited to California conditions, which will, without great expense, protect our farm animals from tubercular infection. One veterinarian is constantly employed in field work, which is now in progress in co-operation with stock owners on seven ranches, upon which there are about 2,000 dairy cattle, 15,000 stock and beef cattle, and 3,000 swine, the material collected being studied to obtain further information concerning the channels through which this disease is spreading.

The seed laboratory, operated in co-operation with the United States Department of Agriculture, has made 2400 examinations within the year, either for purity, germination, or identification. During the same period 2200 samples of soil were examined relative to alkali or plant food content and report rendered as to adaptability for crops or methods of tillage and fertilization.

In co-operation with the Bureau of Soils, the department is preparing an authentic soil survey of the state to the end that any investor may

be advised as to the general character of the soil he is purchasing. Since July 1, 1913, four and one-half million acres of soil were mapped in the Sacramento Valley. In this survey over one hundred types were recognized and fully described in the report, and on the published map, sixty-six different soils or groups of soils, are shown by separate color.

During the past winter, the soil survey of Southern California was started and about two hundred and fifty thousand acres were mapped. That work is now suspended and work is progressing in a survey of the Russian River Valley, the Honey Lake district, and the San Francisco Bay district, the latter covering an area of nearly five thousand square miles. On the Kearney Ranch near Fresno, one hundred and sixty acres of land that was once very productive but now worthless on account of alkali and high water table, have been drained and are now being flooded. It is expected that this experiment will show the feasibility of draining and removing the alkali from the land and will prove the possibility of reclaiming nearly 60,000 acres of land in Fresno County alone. This reclamation will cost about \$60 per acre and should put the land in condition to grow any crop normally adapted to such a soil.

Boys' Agricultural Clubs have been established in eighty-four high schools. Farm Advisers have been placed in Humboldt, San Diego, Yolo, and San Joaquin counties, while several other counties have applied for similar service. By these means the results of the Experiment Station are brought to the door of the farmer through a human agency. Members of the staff are constantly in the field studying the personal problems of the farmer and, where possible, advising as to the best methods. In twelve months over 50,000 letters have been written, largely in answer to individual questions and more than 500,000 reports, bulletins, and circulars of the station have been distributed.

The Agricultural Extension Division estimates that during the past ten months, through farmers' institutes, movable schools, agricultural clubs, various letters and personal visitations, it has been in touch with 175,000 individuals.

In pursuance of its chief duties—research, education, and service—the department develops other activities, which, while only incidental, are still of some value to the general welfare; for example, during the past year the department has sold \$16,000 worth of pure-bred and other livestock, including poultry and poultry products. The University Farm Creamery receives milk from eighty-four patrons and sells butter and other dairy products to the amount of \$53,144.75. The certified dairy maintained at Berkeley has served to point the way to sanitary milk and the department through co-operation with the medical milk commissions of the bay cities, has been able to set and maintain a wholesome standard for the milk supply of these cities.

There has been a marked betterment in the standard of instruction in the Department of Agriculture during the year. This has been due to a decided increase in the subject matter offered, to more extended laboratory facilities, and to an insistence that the student shall make adequate preparation for his daily tasks. The courses of study have been amplified and standardized and brought into harmony with the best traditions of university life. The announcement of graduate courses of study in agriculture is much more complete than has heretofore been attempted. The contribution to the summer session by the several divisions of the department has been most hearty and gratifying in view of the fact that no additional stipend is given for this work. Fourteen summer practice courses have been organized to meet the needs of the students, who have completed the sophomore year, for practical experience along the line of their major work. University instruction at the University Farm has been developed both along scientific and practical lines. The work continues to grow in popularity to such an extent that the sixty University students who were in residence there this semester have petitioned unanimously that University instruction be provided throughout the year in place of merely in the second half-year as at present. For financial and other reasons, it was necessary to deny this petition, but the time will probably soon come when it will be necessary to provide such work throughout the year, not only for the purpose of increasing its efficiency but also to relieve the pressure at Berkeley.

The Department of Agriculture has announced thirty-two correspondence courses in agriculture. The first lessons were sent out on September 18. On May 1 there were 6743 pursuing these courses, while 1366 have applied for courses being prepared but not yet ready.

It is impossible, in the limits of this report, to refer to the personnel of the department or to the twenty-two divisions of instruction. There have been appointed to the department forty-eight persons who have begun their services to the University during the fiscal year. A new division of Forestry has been created and instruction was begun in this subject in the second half-year.

Anthropology.—Owing to the heavy enrollment, which includes more than three-fourths of the four hundred registrations in anthropology, emphasis has been placed in work and effort upon the introductory course in general anthropology. Museum activities have been carried on in San Francisco and in Berkeley, serving immediate public education through exhibition, demonstrations, and lectures. It has been the aim of the department to set forth the treasures of its museums as things of live and stimulating interest. By means of lectures, decorations, and remountings, rotating exhibits and the like, the efficiency at the museum as an educational factor has been increased. The total attendance at

the museum for 1913-14 was 24,331. Visits were made by 168 different schools, which included 8959 pupils. This is an interesting figure as compared with 1911-12, when visits were made by thirty-five schools and 1932 pupils. There have been fifty-five Sunday and holiday lectures. Two new rooms—the Southwestern Indian and Asiatics—have been opened in the museum in San Francisco, and each of the four old halls has been altered and improved. The Berkeley collection has also been the center of much interest during the year, and has attracted nearly four thousand persons. Research work is being carried on by the department; to date four thousand pages have been printed in the University of California Publications in American Archaeology and Ethnology.

Architecture.—The School of Architecture has attracted to itself during the past year so many students that the department was cramped for room. Mr. William E. Leland has been added to the faculty as Lecturer in Architectural Mechanics, a subject necessary for the technical curriculum. Certain modifications have been made to increase the work of the school in range and in solidarity. The second year-book of the department was published in April, and is a very creditable work. Upon completion of the curriculum of the School of Architecture by two students award was made for the first time this Commencement of the degree of Graduate in Architecture. Professor John Galen Howard, for the department, states its pressing needs of increased accommodation as well as a more complete equipment of the present building. It seems desirable to members of the architectural faculty that scholarly activity should be stimulated by the offering of fellowships and prizes.

Astronomy.—Enrollment in the Berkeley Astronomical Department has grown to a point where the lack of space for laboratory and classroom purposes has become a serious problem. Every semester, owing to the limitation of enrollment to eighty in the practical courses, a number of students are turned away. The new Bamberg 90 mm. prismatic transit, added to the equipment in 1912-13, has been thoroughly tested by Professor Crawford, and has been found to be one of the finest instruments of its kind, during the past year serving with excellent results in a longitude determination by wireless telegraphy. After several years of delay the printing of Volume VII of the Publications of the Lick Observatory, containing more than five hundred pages of "Contributions by the Berkeley Astronomical Department" has been completed. Researches on the perturbations of the Watson asteroids, which have been unusually successful during the past two years, although in progress for more than twelve years at a total cost of more than \$15,000 appropriated by the National Academy of Sciences, will be completed and published next year. The department is contriving to earn much praise from the astronomical world for its prompt and accurate orbit determinations.

Botany.*—The larger enrollment in the University is reflected in the increase of students in the courses of botany. The large lower division course, Botany 1A, is cramped by reason of inadequate lecture room. Laboratory courses for the lower division have been materially changed; the prescription of laboratory botany in the College of Agriculture has resulted in the overcrowding of these courses. Advanced undergraduate laboratory courses have been attended in somewhat increased numbers, taxing the accommodations of the department. The number of graduate students in the department is increasing. Professor Setchell says in his report: "The present Botany Building is totally inadequate for conducting the work demanded of the Department of Botany on the instruction side. Increased space should be immediately provided by certain additions to the present building or by a new structure specially devoted to this work." The herbarium and botanical garden have been managed satisfactorily to the department, with moderate increase. The unfavorable location of the botanical garden hinders its usefulness for scientific investigation.

Celtic.—Under the direction of W. W. Lyman, Jr., work in Celtic languages has been offered with profit to the students of the University. The department gave two courses during the year, one of these a course in modern Irish designed to present the language as a living tongue. This course was intended as a preliminary to advanced modern Irish and to Old Irish, to be given in 1914-15. The other course offered during the past year was one in Welsh—the first time a course in Welsh had ever been offered in the University of California. It was given as work of an advanced grade. Selections in prose and verse were used by Instructor Lyman in presenting the material of the course.

Chemistry.—The unexpectedly rapid growth of the chemical courses has taxed the resources of the department. Although provision was made this year for over two hundred new places in the elementary laboratory course, forty students were obliged to postpone their work in this subject. Such a condition, however, will not soon recur, since the new first-year laboratory, which is now being constructed near the chemical auditorium, will accommodate 1100 students. This laboratory course, 3A-3B, and the lecture course, 1A-1B, have now been merged into a single course with advantage to all concerned. The combined course is prerequisite for further chemical work and is prescribed for all engineering, agricultural, and pre-medical students. Every effort is being made to bring it to the highest point of efficiency. The numerous papers recently published by instructors and students in the Department of Chemistry show the wide variety of problems now being investigated in the laboratory. The weekly conference of all engaged in chemical research permits a full discussion of the investigations while in progress, and the

* A list of gifts presented to the Department of Botany, its Garden, Museum, and Herbarium will be found on pp. 213-217.

biweekly colloquium has enlisted the interest of many men outside the department. Four seminars have been given during the year. The demand increases for men qualified to undertake the problems of industrial chemistry. A new curriculum in the College of Chemistry has just been adopted for students who wish to specialize in chemical engineering. In conjunction with this plan a new course in technical electrochemistry will be offered next year, and the present half-course in chemical technology will be increased to a full course.

Civil Engineering.*—Eleven sub-interests are recognized by the Department of Civil Engineering as follows: (1) structural and architectural, (2) sanitary and municipal, (3) railroads and economics, (4) testing laboratory, (5) theses, (6) surveying, geodesy and drafting, (7) irrigation, (8) summer school of surveying, (9) experiment station and research laboratory, (10) applications to domestic science and home economics, (11) machine department. "The surveying and architectural interests particularly," says Professor Derleth in his report, "require a fuller development." In teaching force and in material facilities of room space and the like, the department is hard put to take care of the number of students which now demand instruction in various branches of civil engineering. Owing to the fact that next year new obligations will necessitate instructing agricultural and forestry students, and students in other outside departments, this need will be particularly pressing. It is estimated that 52 per cent of the civil engineering instruction will go outside the College of Civil Engineering for 1914-15. Laboratory expansion is particularly emphasized by Professor Derleth as a need of the department. Civil Engineering is of service to the University in co-operating with other departments, offering numerous courses to students of mechanics, mining, agriculture, military science, and the like.

Drawing.—New courses have been added which were needed for the better preparation of prospective teachers of drawing in both geometrical and freehand branches. This was made possible by the employment of an instructor on full instead of half time. The Department of Drawing has also participated in the University Extension work so far as it has been possible to do so without additional help. The increasing enrollment has made it difficult to accommodate all students; but the new drawing building is giving relief in this respect, and it is also promoting a closer co-operation within the department.

Economics.—Emphasis has been particularly laid upon two lines of development—one in the introductory course in economics and the other in preparation of groups of courses designed to afford technical training in special fields of business such as accounting, railroading, insurance,

* A list of gifts presented to the Department of Civil Engineering during the year will be found on page 217.

and banking. The number of students beginning work in economics has shown marked increase. It is interesting to note that the department has extended its list of evening courses. During the fall term courses were given by Professor Hatfield and Mr. Forbes on accounting, and during the spring term there were provided besides a course of thirteen lectures on advertising, and another of eight lectures on fire insurance. These courses were open to the public and largely attended. Several members of the department have also taken part in University Extension work by giving lectures at centers in San Francisco and Los Angeles.

Education.—The enrollment has been placed for the past year by the Department of Education in its various courses at the figure of 600. The gain in enrollment in five years has been 70 per cent. For the year there has been an average of 131 cadets taking practice teaching. As heretofore, this teaching experience has been obtained in the schools about the bay by the generous co-operation of the various boards of education, and superintendents and principals of these local systems. A recent resolution of the State Board of Education recommends some more permanent and better organized means of realizing the purpose of the state in this university training of teachers. Through the courtesy, however, of the Oakland Board of Education a secondary school has been opened in Oakland for this particular purpose. Professor Rugh of the department is to act as principal of the school, and opportunity will be given for training of university students in teaching. The department has taken part in University Extension activities and in conducting teachers' institutes.

English.—In the lower division courses in English, while the necessary drill in written composition has been maintained, increased emphasis has been laid upon practice in speaking, and with desirable results. Arrangements have been made for economy of effort and increased efficiency of instruction by consolidation of the numerous sections in the sophomore course in literature into two large lecture divisions of three hours a week each, and attendant subdivision of the class into small preceptorial sections, an additional hour each week for personal conference and oral reports. This preceptorial work is not relegated to inexperienced quizmasters, but practically every senior member of the staff will, as at Princeton, assume charge of one of these sections. The College of Mechanics has set aside hours in the sophomore year for a course in the preparation of technical briefs and reports. "There is urgent need," says Professor Gayley, "of a lecture room large enough to accommodate the whole freshman class in English or the class in Great Books, including visitors. This room should hold at least one thousand students."

Geography.—Professor Holway reports: "The work of the Department of Geography has progressed satisfactorily during the academic year 1913-14. The enrollment in the freshman class has been close to two

hundred. A rearrangement of the details in the courses of instruction has been made to give closer articulation with other departments and particularly with the College of Commerce. With the small annual increases in our modest equipment for the Meteorological Station, there is resulting a greater co-operation with investigations in other branches of study. At present a survey of local variations in rainfall and run-off is being made on the watershed of Strawberry Creek, in connection with the College of Civil Engineering."

Geology and Mineralogy.—On the department's behalf Professor Lawson attended the session of the International Geological Congress at Toronto, Canada, and participated in the discussions. As a stimulus to geological science the meeting was most successful. Scientific work within the department has been pushed during the past year. Professor Lawson has completed an investigation of the geology of the region about San Francisco Bay, which will shortly be issued by the United States Geological Survey. Associate Professor Louderback published a paper on the Monterey Series in California. Professor Lawson has also prepared other papers on geological subjects of interest, and attractive work has been done as well by Associate Professor Eakle, Instructor Davis, and Assistant Whitman. Associate Professor Louderback has been granted leave of absence for the next year. During the interim Mr. E. S. Larsen, of the United States Geological Survey, will serve. It is the hope of the department that a detailed topographical map of the Berkeley hills may be secured for its work. Professor Lawson further emphasizes the need by the department of a small fund for the payment of field expenses for geological investigations in the outlying parts of the state by graduate students.

German.—The Department of German has shared in the increased attendance at the University. This increase has made itself felt in the rather unwieldy size of the sections of the elementary courses. The organization of the work of the department has been improved by the establishment of five-hour courses for all beginners and of a new three-hour course for the second year. This arrangement will give hereafter a total of sixteen units of preparation in the lower division instead of ten or twelve units as heretofore, with the result that the elementary upper division courses will be placed upon a higher plane.

Greek.—The work of the department was enriched during the second half-year by courses conducted by Professor John Linton Myres, Wykeham Professor of Ancient History in Oxford University, who accepted the first appointment as Jane K. Sather Professor of Classical Literature. Professor Myres conducted a seminar in Herodotus in addition to two lecture courses in ancient history. The study of Greek epigraphy will be facilitated by the purchase of fifteen plaster reproductions of monu-

ments in the British Museum illustrating all periods of Greek epigraphical development. For the better study of papyri there have been ordered for the library all of the important Greek papyrological publications. The collection of casts of Greek and Roman sculpture has been considerably enlarged.

History.—The two chief events in the Department of History in the past year have been the visit of John L. Myres, Wykeham Professor of History in the University of Oxford, and the appointment of Mr. Charles E. Chapman as Instructor in California History. Professor Myres' courses upon the Dawn of History, Greek History, and Herodotus furnished inspiration to the students of the University and much stimulation to the members of the department. The appointment of Mr. Chapman is the crowning result of assistance rendered to the study of California History by the Order of the Native Sons of the Golden West in maintaining travelling fellowships for advanced study in Spain.

History 1, due to the enrollment of 630 students, is given in Harmon Gymnasium and requires the continuous assistance of capable assistants who act as section masters. Nineteen students are enrolled as candidates for the Ph.D. degree. The Department of History is grateful to Regent J. K. Moffitt, '86, for his gift to the University of the *Acta Sanctorum*, of the *Gallia Christiana*, and of a reprint of Mansi's *Consilia*. These gifts have placed upon a sound basis the possibilities of study in mediaeval European history. Professor H. E. Bolton has during the year made valuable contribution to students of Spanish-American history in his publications.

Hygiene.—During the past year the courses in epidemiology, sanitary surveys, public health administration, and domestic hygiene have been continued along practical lines and have shown steady growth. The course in personal hygiene to freshman women has been held in Harmon Gymnasium during the past year, owing to the crowded condition of the class. This crowding is shown as well in the instruction in home care of the sick. Practical teaching in first aid was carried on as an upper division course limited to juniors and seniors of the colleges of Mining and Mechanics. The present year has witnessed the opening of a small laboratory of hygiene entirely separate from the bacteriological laboratory. The new laboratory is adjacent to the State Hygienic Laboratory. Graduate students have pursued research in special subjects, particularly on the development of laboratory measures for the differentiation of smallpox from chickenpox. The Museum of Hygiene, an educational exhibit, has been placed at the College Avenue entrance to the University grounds. It has been well attended by visitors. In the State Hygienic Laboratory, under the direction of Dr. Sawyer, two new functions were added, the manufacture and distribution of typhoid vaccine and the

performance of the Wassermann test for syphilis. The free distribution of typhoid vaccine has been carried on with the intention of popularizing its use. In the special investigation of the epidemic of rabies in California over four hundred heads of dogs and other animals were examined. The virus used in the Pasteur treatment was manufactured and administered by the laboratory to over two hundred persons who had been bitten by rabid animals. Regular diagnostic tests for the various preventable diseases, especially diphtheria, tuberculosis, typhoid fever, gonococcus infections, and malaria have been carried on as heretofore. In October the laboratory was moved to more spacious quarters in the Hygiene and Pathology Building.

Irrigation.—Two hundred and fifty-eight students enrolled in the irrigation courses during the past year, more than 50 per cent being civil engineers, and 33 per cent being agriculture students. It is the aim of the Irrigation Department to offer courses primarily planned to meet the needs of prospective civil engineers and agriculturists. Five courses are given primarily for civil engineering students and four for agriculture students. Professor Etcheverry has continued his series of weekly articles in the *Journal of Electricity, Power and Gas*. The continued increase in enrollment in the irrigation courses and growth of interest as attested to by enquiries received shows the great demand for instruction in irrigation. The demand continues for graduates in irrigation. With other departments of the University the Irrigation Department suffers from inadequate room facilities. Professor Etcheverry recommends moving the irrigation offices to the Civil Engineering Building if the needs of the Agriculture Department make the occupancy of the irrigation rooms in Agriculture Hall imperative.

Jurisprudence.—One hundred and twenty-nine students registered in the School of Jurisprudence during the past year, as contrasted with 79 in 1911-12 and 119 in 1912-13. Significance is attached to the large number of graduate students in attendance and the wide distribution of institutions represented, twenty-two universities and colleges sending graduates to the California school. The lower division, non-professional courses attracted many students as well. During the year a series of special lectures was given by prominent members of the bench and bar to the students of the school. In pursuance of a well defined policy the faculty of the School of Jurisprudence will, beginning next year, impose an examination based upon the work of the entire three years to be required of all candidates for the J.D. degree. This is in addition to the regular course examinations for the purpose of annual promotion. At the April meeting of the Board of Regents it was resolved that a law library fee of \$12.50 per semester be charged all students registered in more than one professional course in law in the School of Jurisprudence.

Latin.—The department is offering for the first time a course in the Elements of Law Latin. Thirty students have taken the course during the past year, showing that the work has met a real demand. The Richardson Latin Composition Prize is being offered yearly. The subject during the current year is "The Roman Forum," and the candidates are to treat the topic in Ciceronian Latin prose. It is interesting to note that in the Subject B examinations in foreign languages, given for the first time in January, 1914, while 17 per cent of those taking the examination in the various languages failed, because of their inability to translate into good English, no student taking the Latin examination was disqualified for this reason. Courses in the training of teachers have been carried on with profit and success.

Mathematics.—The lower division classes continue larger than is really suitable for individual instruction, the average being thirty-seven students to a section in the lower division courses. Through a readjustment of courses the department was able to carry on the increased work. Professor Haskell calls attention to the evident lack of preparation for mathematical training in some of the students sent from the high schools, making it difficult to teach them in the lower division courses. He recommends to cure the situation a prescribed continuance of four years of mathematics in the high school. In pursuance of the policy adopted last year, a final examination has been given to students graduating with mathematics as a major subject. The result, says Professor Haskell, has been gratifying in that some of the weaker students have been diverted to other fields, while those who continued took the matter seriously. He recommends the plan for general adoption. The Department of Mathematics has participated in the work of University Extension, Dr. H. N. Wright of the department carrying on such courses as are offered in this field.

Military Science.—In August, 1913, a mounted detachment was organized as a part of the regiment of University Cadets, attracting about fifteen students. Instruction was given in extended order work and field exercises to a far greater extent during the past year than has ever been attempted heretofore. The field exercises were made possible by the substitution of half-day drills for the alternate Friday drill period. Major Nance attributed the falling off in neatness to the giving up of so many periods heretofore devoted principally to inspections. For the year 1913-14 the Department of Military Science of the University was placed by the War Department upon its list of distinguished colleges, sharing that honor with nine other institutions in the United States. This is as signal a distinction as it is possible for a university to attain in the War Department's ranking. The work of the War Department's military camps is of value to the University through increasing the efficiency of officers who attend. Particularly is this efficiency increased

in the better understanding of extended order work and the conduct of field and combat exercises. The total number of students enrolled in the department during the year was 1676.

Mining and Metallurgy.*—The department has benefited by generous donations from Mrs. Phoebe A. Hearst. Various mining machinery companies have also kindly donated working models. Professor Christy attributed to the general financial depression the halting of new mining developments throughout the United States. Notwithstanding this, he called attention to the increase in enrollment for the year in the College of Mining. A comparison had been made by Professor Christy of the curricula of Columbia University and the Massachusetts Institute of Technology with that of the University of California. He called attention especially in his comparison to the irreducible minimum prescribed for each subject in the curriculum of the University of California with that of the average or mean prescribed in the other institutions, and noted further the elasticity which is given to the students to fit their training to their special needs in this institution.

Mechanical and Electrical Engineering.—In this department instruction is given in steam engineering, hydraulics and hydraulic machinery, gas engineering, electrical engineering, machine design, mechanical drawing, and shop work in wood and iron. Adequate lecture and laboratory rooms and laboratory equipment are not at present available. During the year 1912-13 there were enrolled in the College of Mechanics 310 students, and during the academic year 1913-14, 368 students. The department expects to look forward to difficulty in the coming years because the entering freshman class in August, 1913, numbered 141 students, an increase over the freshman class of 1912 of 72 per cent. The graduate instruction offered by the department has been increased and eight courses are now being given. Decided progress has been made in the research character of the laboratory work of graduate students. Mr. R. S. Tour has joined the teaching staff as Assistant Professor of Gas Engineering. With the co-operation of the Pacific Coast Gas Association the work in gas engineering has been firmly established in the University and is attracting a considerable number of the seniors and graduate students.

Music.—The department numbers about seven hundred enrollments, which is steady growth. The courses in voice culture introduced in 1913-14 have proved their worth, but their establishment as a separate department must soon take place, belonging as they do quite as much to the languages as to music.

The Music Building, though inadequate for most of the larger meetings, is of inestimable value to the organization and in making possible

* A list of gifts presented to the Department of Mining during the year will be found on page 218.

that individual assistance and intercourse with the faculty outside of regular classes, which is so much more productive of real scholarship and enthusiasm than the unvaried treatment of the student as a mere man.

There is notable increase in the student attendance at the University Recitals where much great chamber music is to be heard for the first time in these parts. Among new courses announced is one for graduates in musical criticism. The whole work of the department will be greatly strengthened by the new stipulation regarding Course C (a sort of musical Subject A) by which all students in technical courses must have at least some thorough drill in ear-training and dictation (reading and writing). The correspondence courses with fifty-five enrollments are proving singularly successful. The courses in the "appreciation" of music will be, in future, merged in Professor Pope's "aesthetics," where they belong. The Berkeley Musical Association has authorized the Professor of Music to award each year six prizes to students in the department.

Oriental Languages.—There has been a growing interest in Oriental affairs caused by recent events in the Far East. This has found expression in an increased enrollment in the courses offered by the Department of Oriental Languages, although every course in the department has now been made elective. The number of Chinese and Japanese who avail themselves of the opportunity to make careful study of their own language and literature has been an interesting feature. Professor Fryer recommends the establishment of a separate Oriental school or college, in place of an Oriental department.

Palaeontology.—The undergraduate enrollment has increased, in the general lecture course being nearly double. Field work is being carried on by undergraduates, of a character similar to the graduate field work. The nature of the department makes a collection indispensable, but the department is hampered by lack of room for storage. In the graduate work there have been approximately fifteen students all engaged in original investigation. Successful results were obtained. Some of the papers of the graduate students have been published. A summer session camp was organized this year, and field operations carried on in the Santa Ana Mountains of Southern California. Various concrete problems have engaged the attention of the department in its field work, including the study of the origin and occurrence of the asphalt deposits of Rancho La Brea under the direction of Professor Merriam. Papers have been prepared by graduate students on various prehistoric fauna of California. Plans for extension of research work are in progress, and definite problems await the attention of the department. Extensive additions to the department's collections have been made during the past year through exchange of duplicate material from the Rancho La Brea collections.

Philosophy.—The increase in the number of students in this department has been greater relatively than the growth of the student body as a whole. The teaching force is inadequate and the building much too small to meet the demands made upon the department. Professor Rieber, for the department, recommends the institution of work in animal psychology and of more study in educational and abnormal psychology. The department has been able to co-operate with Dr. Lucas of the Department of Pediatrics, in the Medical School, in the matter of mental examination of children brought to the Children's Clinic, but for the furtherance of work of this general character where psychology could be of great and varied value for the work with mental defects there is an urgent need for a man with wide training in abnormal psychology.

Physical Culture.—Instruction has been given in Hearst Hall during the past year from nine to six daily. Even under these circumstances, however, in some of the elective work admission was denied owing to the lack of room. Dancing has been introduced in the men's classes by Professor Kleiberger, and has seemed to benefit the students. Advanced courses, however, in Harmon Gymnasium have been interrupted by lecture class which have been held there owing to the lack of room elsewhere. Professor Magee recommends in his report that those men who elect out-of-door work be further accommodated by having additional space on the campus set aside for them.

Physics.—After two years of occupancy the Department of Physics has now adjusted itself to South Hall. The workshop-annex immediately north of South Hall was ready for occupation on June 1, 1913. Its plan and situation seemed to aid in the proper conduct of classes in physics. The addition of one instructor has given relief under the pressure of increasing enrollment, enabling the department to inaugurate a double course for freshmen, beginning in January and ending in May. The Physics Department looks forward to being able to have one of the permanent staff in charge each summer of the summer session course by a scheme of rotation in office.

Political Science.—There were enrolled in the courses offered by the Department of Political Science 1019 students, as compared with 935 during the previous year. Enrollment in the second semester is usually considerably higher than in the first. The number of students doing graduate work under the Department of Political Science has steadily increased. There were fifteen students in attendance upon the graduate seminar through the year, most of these being candidates for a higher degree.

Including the work in public law offered by the Department of Jurisprudence, the field of political science is well covered. There is

need, however, of additional instruction in the field of public administration and administrative law, and in modern European politics.

Extension lectures were given by Professor Reed at Long Beach, Ontario, and Santa Barbara, with an average attendance at each place of over two thousand. Professor Reed has served during the year as president of the City Club of Berkeley. Professor Barrows and Professor Reed are both members, the former being chairman, of the committee of the Alameda County Tax Association preparing a preliminary charter for the county. Members of the department were called upon for a great deal of service outside of the University.

Romanic Languages.—The five hour system in beginners' courses, inaugurated last August, has worked out successfully. The students acquire a better speaking knowledge of the language through more frequent revision and closer contact with the subject. A transition course from the usual AB-CD courses to upper division courses, bridging over the gap, has been introduced. It must be taken before the upper division work is started. Thus sixteen units of preparation are required for upper division work. The graduate department has grown rapidly, three candidates presenting themselves for the Ph.D. degree. During the next year a comparative study of European and American literatures will be carried on. New additions to the department during the next year will relieve the heavy pressure which has been caused by many students and addition of new courses. The department was aided during the year by two visiting professors from France, M. Baldensperger and M. Bellessort.

Semitic Languages.—In the Semitic Department four graduate students were registered during the past year preparing to do major work for higher degrees. The registration in undergraduate lecture courses is slowly increasing. While in some universities the study of Semitic languages is encouraged as aiding those who study theology, no formal alliance exists between the University of California and the neighboring theological seminaries, nor do the Berkeley seminaries require Hebrew as an essential part of the curriculum. Moreover, Professor Popper reports the offering of only one unit of credit for one hour's attendance upon courses is discouraging to students because of the relatively greater time which must be spent by them in preparing in a language which is absolutely unfamiliar. Another number of the Semitic series of the University publications has been issued during the past year.

Slavic Languages.—Courses were given during the past year in Elementary Russian, Advanced Russian, Advanced Polish, Russian Novelists, and Slavic Literature. The latter two are lecture courses, and attracted from sixteen to eighteen students. The recitation courses were attended by a smaller number.

Zoology.—The enrollment in the Zoology Department has increased from 763 in 1911-12 to 902 in 1912-13 and to 1000 in 1913-14. The graduate work continues to attract students, forty-two being the total number registered. Of these thirty-two were taking major work in zoology. It is interesting to note that ten are studying for the doctor's degree. Eighteen different colleges were represented in the graduate work. Research done by graduates and by the staff has been productive during the past year of valuable results, thirty-six papers being published or accepted for publication. Twenty-eight of these, comprising over two volumes, will appear in the California Publications in Zoology. Members of the department are undertaking particularly worthy and interesting lines of investigation. Professor Kofoed states as one of the pressing needs of the department a larger lecture room, and recommends furthermore an aquarium and culture house for work in experimental evolution.

ALUMNI SECRETARY

BERKELEY, July 1, 1914.

To the President of the University,

SIR: I have the honor to submit herewith my report, covering the period from July 1, 1913, to June 30, 1914.

Among the various efforts of the graduates of the University through their official organization, the Alumni Association, "The California Alumni Weekly" always plays an important part. The circulation of this journal is now 1300.

On December 11 of last year, the Alumni Association of the University of California was the host at a reception in the St. Francis Hotel, San Francisco, in honor of Mrs. Phoebe A. Hearst. Almost one thousand of the graduates and friends of the University were present.

The local club has always been felt by the officers of the association to be of inestimable importance in knitting together the alumni group. In recognition of this fact, the secretary visited meetings of the California clubs of Boston and Washington, D. C., last fall, striving in so far as his ability extended to convey the news and spirit of the University. The New York City Club, which had been dormant, was revived on the occasion of the secretary's visit, and has since maintained an active existence. During the past year new clubs have been formed in Marin County, Portland, Oregon, and among the women of Southern California. The University of California Club of San Francisco has maintained its position of leadership. Its new venture of the year was the development of an alumni football team to furnish a healthy

competition for the 'Varsity. The club has labored under financial difficulties, and has recently been forced to levy an assessment of twelve dollars per member.

In connection with clubs it is natural to revert to the social aspects of alumni organization. The football dinner, on the eve of the "big game," was held last November at the Commercial Club, San Francisco, under the direction of the class secretaries. Over three hundred attended.

Tickets to the intercollegiate football game the following day were distributed by the Alumni Association with special consideration for paid-up members.

Athletics, particularly the "big game," always play a master part in drawing the alumni to an intimate association with the campus. This year there was a new sort of link when a number of graduates distinguished in fiction and sketch edited one number of the "Pelican," the student humorous publication.

At Commencement time reunions under the Dix plan were held by the classes of 1884, 1885, 1886, and 1887. Reunions were also held by 1874, 1877, 1894, 1898, 1913, and others.

The annual luncheon and meeting of the association were held in the Faculty Club glade on Commencement Day, with an attendance of almost six hundred. President Chickering presided. Reports were heard (the treasurer's showing \$765.24 on hand); there followed a number of speeches and the election of officers. This meeting was succeeded by a baseball game between the Alumni and the 'Varsity. The former were victors, six to one.

At the annual meeting was announced the most important project that the association has on its hands now. This is the pressing of an initiative measure to issue \$1,800,000 worth of state bonds for new university buildings. Alumni all over the state are carrying petitions for the collection of the required 31,000 signatures.

The officers for the current year are as follows: A. L. Chickering, '98, President; Sayre MacNeil, '08, First Vice-President; W. W. Morrow, LL.D., '13, Second Vice-President; C. C. Young, '92, Treasurer; K. C. Leebrick, '11, Secretary. Councilors:

Robert Belcher, '00; Douglass Brookman, '10; Adolphus Graupner, '97; Chaffee E. Hall, '10; Milton B. Lennon, '01; C. Lynch, '06; Frank Otis, '73; Mrs. C. H. Parker, '07; Willie A. Powell, '02; James G. Sharp, '93; and Mrs. E. B. Stanwood, '98.

Respectfully submitted,

JOHN L. SIMPSON, '13,
Secretary.

APPOINTMENT SECRETARY

BERKELEY, July 1, 1914.

To the President of the University,

SIR: In my last year's report I called attention to the increased use which school officers are making of the Appointment Secretary's records, not only of our own graduates but of the graduates of other institutions. Since the University has returned to its former practice of sending out fifteen or twenty members of the faculty each year to examine the work done in the secondary schools, it has been possible to cover practically the entire state each year. While the work of every teacher can not be seen in the larger schools, individual reports on about three-fourths of the teachers employed in the secondary schools are now filed with the Appointment Secretary each year. The appointing officers of the state have been quick to avail themselves of this great body of expert testimony. I think it is safe to say that no other state in the Union has developed the reciprocal relation between college and secondary school as it has been developed in California. The effect not alone on the school but on the University is marked. While this is the object for which inspection was instituted, the secondary use of the information gathered for the benefit of the schools and teachers is of almost as great importance.

Who shall measure the quickening power of the truly skillful teacher? Who shall give us a standard by which we may measure our shortcomings, and see how we are cheating the coming generation, robbing them of power they are surely going to need to solve the pressing problems of the day? The time is past

when the officers of a great institution like our public school system take their duties lightly. A few years ago the peripatetic teacher failing in one school blithely took the road in the spring, traveled beyond the range of rumor, and secured another position, "recommendations" being easily obtained when you asked the right person for them. The trustee who hires on such testimony is passing away, along with the business man who hires men because they have "influence" or belong to some fraternal order. The school officer of today is alive to the responsibility that has been placed upon him. Modern education is an expensive investment. Communities demand results. Pouring out money for lands, buildings, laboratories, workshops, libraries, will not give results, without the informing spirit of the real teacher, the guiding power of the real leader.

How find this guiding spirit? It is the question of the age. The state spends millions in training teachers, but loses much of the benefit it should derive by leaving to chance the delicate matter of individual adjustment to duties. California has as yet a small body of teachers in its public schools, about 12,000 in the elementary schools and 2500 in high schools, junior colleges, and normal schools. It would be possible to divide such a body of teachers into small groups, whose individuals could be personally known to a qualified judge, and whose work could be inspected, so that those who have the most to give could be advanced to positions of responsibility. That is the service which the University's system of inspection of secondary schools enables it to render the high schools of the state. The seven hundred graduate students registered this year at the University furnish a body of new recruits from many different states to supply the gaps in the ranks; but by far the most important part of the work of the Appointment Secretary's Office is now the furnishing of data for promotion of graduates of former years, not only our own, but those of other institutions, whose good work has been commended by members of the University faculty engaged in the inspection of secondary schools.

The state normal schools are now empowered to train high school teachers of drawing, music, physical culture, and com-

mercial, technical or industrial subjects, but the enormous expense of properly equipping eight different training schools, and the ever present problem of content of courses and collateral work to give them body, prevent development. In the meantime the demand that the University standardize this work, as it has the rest of the high school curriculum, continues to grow more and more insistent. It is to be hoped that our new School of Education will attack this problem vigorously.

Respectfully submitted,

MAY L. CHENEY,
Appointment Secretary.

SAN FRANCISCO INSTITUTE OF ART

SAN FRANCISCO, July 1, 1914.*To the President of the University,*

SIR: I have the honor to submit the following report of the San Francisco Art Association (San Francisco Institute of Art) for the year beginning July 1, 1913, and ending June 30, 1914.

The purposes for which the Art Association was organized have been kept steadily in view and the affairs of the Institute and school show a gratifying condition as a result of the year's activities. As was pointed out in a previous report, probably no other art institute covers such a large field without financial support from the city or state. The greatest need at the present time continues to be a suitable building to replace the temporary one erected after the great fire. The regular exhibition of the association's painting and sculpture is maintained for the benefit of the members of the association, the students of the University, and the general public. The following special exhibitions were held during the year:

November 19, 1913, a collection of oil paintings by American artists, under the auspices of the American Federation of Arts; December 8, 1913, a collection of paintings and sculpture comprising the Fourth Annual Exhibition of the California Art Club of Los Angeles; March 7, 1914, a collection of etchings by the Chicago Society of Etchers; April 3, 1914, the Annual Spring Exhibition of the San Francisco Art Association, including work in all mediums by California artists; May 15, 1914, Annual Exhibition of the School of Design. In addition to the foregoing lectures were held in the Institute under the auspices of

the San Francisco Society of the Archaeological Institute of America, on November 20, December 18, 1913, January 15, February 12, March 12, April 6, 1914. Receptions were held on the evening of April 3, 1913, the opening of the Spring Exhibition, and May 15, 1914, the School Commencement.

The School of Design is in session nine months in the year, this period being divided into two terms. The number of pupils enrolled during the year was 335; the number of instructors in the faculty was nine. The high standard of the school in the matter of discipline and industry has been fully maintained. The exhibition at the close of the year of the work done by the students, was extensive, of great variety and received general commendation. The Art Association grants annually twelve scholarships as a reward of merit in the school and to assist young persons of talent who are unable to pay the required fee. The school also, by an arrangement with the Julian Academy of Paris, awards through an annual competition, a scholarship in that institution and a silver medal. Of the eleven scholarships offered in competition to students of the United States by the Art Students' League of New York, the school won two for modeling, with three honorable mentions for drawing.

In addition to the work outlined, it is the custom of the association to encourage correspondence with those desiring information on art topics, and to give aid by advice and assistance to all art movements in the city and state when requested.

Respectfully submitted,

VANDERLYN STOW,
President.

COLLEGE OF DENTISTRY

SAN FRANCISCO, July 1, 1914.

To the President of the University,

SIR: I most respectfully submit my report as Dean of the Dental School of the University of California for the year ending June 30, 1914.

The affairs of the school in general have proceeded along policies pursued in the last few years, and with our advance entrance requirements rigidly adhered to by the University, I am pleased to note much improvement in the quality and number of matriculants into our present freshman year, forty-two students representing the largest class since the school's occupancy of our own building.

Our course in Operative Dentistry has been successfully carried on in the absence of Professor Jos. D. Hodgen by the several instructors in that work.

A course in graduate instruction was inaugurated through the medium of Dr. Chas. K. Teter, anaesthetic specialist of Cleveland, Ohio, comprising lectures and clinics given to the profession of the state, in the halls of the Dental School. The project was enthusiastically endorsed by the profession, and carried on and concluded with the highest expressions of appreciation by all who participated, which augurs well for the future of extension work along dental lines and bespeaks a greater interest on the part of the profession for our University which fosters it.

Under the guidance of Dr. Guy S. Millberry a much greater interest has been developed along the lines of research by members of our faculty and certain students qualified to carry on this work.

As the real progress in dentistry is to be made along this line, I especially call attention to the needs of more advanced

training for our incoming classes, and urge an early adoption of the junior certificate as a fitting foundation upon which to build up a proper dental education. This is in accord with advanced thought in this and foreign countries and the policy of the University of California to lead the way.

At the meeting of the Dental Faculties' Association of American Universities, held at Minnesota, at which the University of California was represented, a motion to recommend to the Presidents of the various universities of the association that all its schools adopt a four-year course in dentistry was unanimously adopted. With the improved and more extended instruction given to dental students the present accommodations in the Dental School have become more and more cramped, and promise to be overcrowded in the near future. This condition can be obviated by advanced matriculation requirements for dental students, to a plane equivalent to those of the medical students, that they might take their laboratory work along with them in properly equipped quarters, or by the addition of more space to the quarters already provided for the dental teaching.

Of especial importance to the future welfare of the school is the appointment of a full-time Dean and Professor of Prosthetic Dentistry. Efficiency in instruction, and economy in time and expense could be greatly increased by adoption of the same policy for the operative department.

The income of the school from students' fees of all sorts, with infirmary receipts, has closely approximated the expense, and with increasing student enrollment and demand for infirmary service, the breach will probably be greatly lessened, especially when considering greater efficiency in instruction by the proposed changes and those actually instituted.

In submitting this report I most respectfully call your attention to the proposed action of the Carnegie Foundation, in the last report of the President and Secretary, to investigate dental educational institutions of this country.

Respectfully submitted,

JAS. G. SHARP,
Dean.

EXAMINER OF SCHOOLS

BERKELEY, July 1, 1914.

To the President of the University,

SIR: I have the honor to submit herewith my report for 1913-14 as Examiner of Schools.

The examination, visiting, and accrediting of schools have been carried out this year in practically the same way as in the previous year. There has been no material change in any of the conditions or requirements affecting any of these activities. The Examiner has visited personally about ninety schools, widely scattered throughout the State. He has given particular attention to visiting and helping the smaller and the newer schools to get into better condition. Everywhere he has been cordially received; school boards, as well as principals and teachers, almost universally seem to welcome the suggestions and criticisms that are offered. It is very gratifying to note, as the Examiner visits the same schools in the following and later years, how great and earnest pains have usually been taken to improve the schools in various ways. It is no less gratifying to realize the feeling of evident good-will between the schools and the University, that becomes more and more noticeable with the succeeding years.

The Examiner wishes especially to express again his appreciation of the excellent spirit of friendly helpfulness to the schools and of kindly co-operation with himself that have been shown by the annual University visitors. The value of the plan of so visiting the schools becomes more evident each year. The writer thinks, too, that the value derived is greater, after all, to the University than to the schools; for, one spending a single day in a school, for probably the first and possibly the last time, cannot permanently change conditions in the school, however

helpful he may be on the occasion. On the other hand, there is always a danger—and one who is much among the schools easily realizes this—that the University man who does not come into contact with the less definite and more varying educational conditions of the schools will lose sympathy and understanding with some of the great educational tasks of our democracy.

Again, it was a source of pleasure to the Examiner to hear the various visitors express their approbation of the schools. As a rule, the visitors were pleased with what they saw, and, to quote the words of one for approximately all, found that, “conditions were very much better than I had expected to find them.”

The Examiner is of the opinion that the time has come when a modification of the yearly accrediting of schools might profitably be made in favor of certain schools. Thus, little of value seems to be gained by requiring certain schools to make yearly formal application for accrediting. Perhaps a three year period would be advisable for these schools, to begin with. The list of such schools, small at first, would naturally grow with succeeding years.

The private schools, too, seem to call for a re-adjustment of the present system of accrediting, in so far as they are concerned. Even if in theory it be true for purposes of accrediting, that private schools are just like public schools, and are to be judged by the same standards and conditions in all respects, this is not true in reality. As a matter of fact, the chief, almost the only, ground upon which a private school can hope to maintain itself is because it is different from the public schools. This difference will vary with different schools: with some it may be a decided improvement over the public type: with others this is not true; but differ from the public schools the private schools do and should. This matter is discussed further in a separate bulletin. “Report of Examiner of Schools to the President of the University of California for the year 1913-14.”

Respectfully submitted,

W. SCOTT THOMAS,
Examiner of Schools.

EXTENSION DIVISION

BERKELEY, July 1, 1914.

To the President of the University,

SIR: I have the honor to submit herewith the first annual report of the University Extension Division.

The work of this division, owing to the uncertainty occasioned by the failure to secure from the state a special appropriation for the support of University Extension, was not formally begun until August 1, 1913. Accordingly this report covers a period of only eleven months. To appreciate what has been accomplished in that time it is necessary to bear in mind that the possibilities of University Extension have been limited practically to the voluntary co-operation of the various departments of the University, departments already overburdened by the duties and responsibilities incident to resident instruction. It will be remembered that on December 20, 1912, the Regents approved a general plan of university extension organization proposed by a committee of the Academic Council, which closed with the following recommendation:

“That inasmuch as, according to the estimate of the Committee, the cost of administering the work of University Extension, together with the expenses for office equipment, printing, instruction, postage, express charges, books, etc., will exceed \$25,000 per annum, the budget of the University as presented to the Legislature include the sum of \$50,000 to be appropriated for University Extension for the biennium 1913-15.”

It will be recalled, too, that a bill providing for a state appropriation of this amount to initiate University Extension was passed by both houses of the Legislature at its last session. This

bill, however, was vetoed by the Governor. In his veto the Governor said:

“It is the wish of the Legislature and the Governor of the State of California that the university extension work be carried on, improved and broadened. It is the hope and the desire of all familiar with the appropriations for the University that plans for a greater extension work shall be matured without delay and that a greater and broader work in this field shall be immediately commenced. The state, this year, has provided for the University of California with utmost generosity and its appropriations at this session of the Legislature far exceed those ever before made. This has been done in pursuance of the fixed purpose of the state administration to bring the University closer to the people, and to bring to all classes some of its benefits. One of the methods of thus bringing to all something of value is by university extension work; and this can be and should be not only continued but greatly improved and enlarged out of the extraordinarily liberal appropriations that have been given this year.”

It is a fact, gratefully recognized by all friends of the University, that, as the Governor says, the state at the last meeting of the Legislature provided liberally for the University of California. But inasmuch as the appropriations made were for specific purposes, not including University Extension, no money was directly available for that purpose. It was consequently impossible to inaugurate the work of this division on the scale that had been contemplated or in a manner calculated to meet the needs of the state and the expectations of those who were specially interested in University Extension. If the Regents had not been able to give a limited support out of the general funds of the University, if there had not been an expectation of a small income from fees, and if members of the Faculty had not contributed their services without compensation, very little indeed could have been accomplished.

Attention is thus called at the beginning of this report to the financial handicap under which we have labored, not by way of complaint or as an excuse for limited achievement, but with the hope, indeed the expectation, that a knowledge of the limitations due to want of funds, the consideration of what has been accomplished under difficulties, the demand for University

Extension instruction that a year's experience has revealed, and the evident impossibility of meeting that demand without a large special appropriation to be applied exclusively to University Extension, will evoke from the state such direct financial support as will enable the University to move quickly to a commanding position in this particular kind of service.

More than a score of state universities are now engaged in university extension. Many of them have a special state appropriation to carry on the work. Minnesota University has this year \$40,000. Wisconsin University will expend during the present year more than \$200,000 in "bringing the University to the people." Its state appropriation for that purpose for the present year is \$185,000. It is acknowledged everywhere that Wisconsin has distinctly and appreciably elevated the intelligence and character of its citizenship through university extension.

A great work of this kind cannot be achieved without a large expenditure of money. Reliance upon the contributed services of members of the regular faculty, whose interest is and should be primarily in their regular work, must necessarily be disappointing. There must be a large university extension staff engaged specifically for university extension service. There must be a considerable and well paid administrative force. That the people of California desire the services the University is endeavoring to render through this division is plainly evidenced by the demands they have made upon us during the past year.

PLAN OF ORGANIZATION

A general plan of University Extension was drawn up in 1912 with the expectation that at the beginning of the academic year there would be available a sufficient appropriation to carry it into full operation. The necessity of beginning without a special appropriation precluded the possibility of undertaking all that had been contemplated, but the plan, in general, was retained. It has been modified in certain minor respects by the exigencies of the situation and by the action of the Academic Council. It was formulated with the distinct idea of easy ex-

pansion as the work should enlarge. As it now stands it is substantially as follows:

(a) *General Organization*.—The work of University Extension is organized under the general name "University Extension Division." In this division there are five bureaus, as follows:

1. Bureau of Correspondence Instruction.
2. Bureau of Class Instruction.
3. Bureau of Public Lectures.
4. Bureau of Public Discussion.
5. Bureau of Information and Municipal Reference.

(b) *Administration*.—The University Extension Division is administered by the President of the University, the Director of University Extension, and the secretaries of the different bureaus, with the counsel of the Committee on University Extension of the Academic Senate.

(c) *Staff*.—The University Extension staff consists of the President of the University, the heads of the University departments in which University Extension courses are announced, and the instructors offering work in the University Extension Division. All members of the University Extension staff who offer courses leading to degrees must be members of the University departments in which their instruction is offered.

(d) *Courses of Instruction*.—The Director of University Extension and the University departments are authorized to recommend the courses of instruction to be offered in University Extension in partial satisfaction for the requirements for a degree, and by whom such courses are to be given. University Extension courses are distinct from all other courses of the University, and students are not allowed to carry on work in these two groups of courses concurrently.

(e) *Fees*.—No fees are charged for services rendered by the Bureau of Public Discussion and the Bureau of Information and Municipal Reference. For class instruction in University Extension a fee of \$5 for fifteen lessons is charged each student. The same charge is made for fifteen lessons by correspondence. For courses of University Extension lectures delivered by members of the University Faculty, the fees charged the local centers

are as follows: For a course of six lectures \$125, plus the local expenses of the lecturer; for a course of twelve lectures \$250, plus the local expenses of the lecturer. For class instruction an honorarium of \$5 per session is paid the instructor. For lectures in a course the honorarium is \$10 per lecture. When engagements are made for single lectures not forming part of a University Extension course the usual charge to the organization or community is \$25 and all expenses, and the full amount is paid to the lecturer.

(f) *Credit*.—University credit is allowed for the satisfactory completion of University Extension courses for the degrees of A.B., B. L., and B.S.; the last year of the course for each one of these degrees must be spent in residence. The basis of credit for work in University Extension is the same as that for regular University work. Examinations for credit must be taken at the University, or under conditions approved by the Academic Council. With respect to all courses offered in University Extension, the matter of credit is to be determined by the Faculty in the usual way as for other University courses.

This plan of organization, it will be observed, provides for five different kinds of University Extension activity, each kind to be under the immediate direction of a special bureau. All of the various lines of activity suggested have been pursued so far as conditions would permit. Each bureau has had a nominal organization, and has been provided with a secretary, although three of the secretaries have served without pay. The scope and progress of the work of the division may best be exhibited perhaps, by the following detailed statement of what has been accomplished by each bureau.

BUREAU OF CLASS INSTRUCTION

The function of this bureau is to organize and conduct University Extension classes. In these classes the subjects of instruction, and the methods pursued, are in general the same as those in the University itself, the main difference being that the instructor is sent to the class instead of the class being obliged

to come to the instructor. This method of University Extension is obviously an economy of time, and is least differentiated from the regular methods of instruction. It is perhaps the most direct and unequivocal method of "carrying the University to the people." With a sufficient instructional force, and the necessary financial support, the bureau would engage to provide an instructor for any group of ten or more persons who would unite in the pursuit of a university subject. The necessity of making this phase of the work practically self-supporting has obliged us, as a rule, to decline to furnish an instructor for classes of fewer than fifteen members, and to limit the work geographically to the towns around the Bay. Consequently several classes that have been organized have been obliged to disband because an instructor could not be provided. In spite of the limitations, however, sixty-six University Extension classes have been formed, not including the classes organized in the prisons at San Quentin and Folsom, to be spoken of later on, and a total of 1464 persons have thus been provided with instruction. The subjects of instruction in these classes, the places of meeting, the instructors, and the attendance are as follows:

FIRST TERM			
Subject	Place of meeting	Instructor	Attend.
Accounting (Advanced)	Berkeley	Prof. Hatfield	4
Accounting (Cost)	Berkeley	Mr. Forbes	65
Banking	San Francisco	Prof. Parker	75
Commercial Law	Oakland	Dr. Harrison	75
Commercial Law	San Francisco	Dr. Harrison	75
Economics	Berkeley	Mr. Bird and others	35
Education	Sacramento	Prof. Thomas	15
Education	San Francisco	Prof. Boone	25
Education	San Jose	Prof. Rugh	22
Education	Vallejo	Prof. Howerth } Prof. Thomas } Prof. Rugh }	25
English	San Francisco	Mr. Drury	7
Parliamentary Law	Berkeley	Miss Fleenor	40
Parliamentary Law	Oakland (2 classes)	Miss Fleenor	40
Stenography	Berkeley (2 classes)	Mr. Armstrong	53
Typewriting	Berkeley (3 classes)	Mr. Armstrong	53

SECOND TERM

Subject	Place of meeting	Instructor	Attend.
Auditing	Berkeley	Mr. Forbes	57
Banking	San Francisco	Dr. Parker	75
Commercial Law	Oakland	Dr. Harrison	50
Commercial Law	San Francisco	Dr. Harrison	25
Commercial Law	San Francisco	Dr. Calkins	13
Domestic Art Education	Berkeley	Miss Toaz	17
Economics	Berkeley	Mr. Brissenden	36
Education	San Jose	Prof. Rugh	18
Education	San Jose	Prof. Rugh	19
English Literature	Hayward	Mr. Bacon	15
English Literature	San Francisco	Dr. Smithson	12
English Literature	Stockton	Mr. Drury	24
French	San Francisco (2 classes)	Miss Dodge	22
French	San Francisco (3 classes)	Mr. Lamare	40
French	San Mateo	Miss Dodge	17
French (Conversational)	Berkeley (2 classes)	Miss Dodge	34
French (Conversational)	Oakland	Miss Dodge	11
German (Scientific)	Berkeley	Prof. Pinger	9
German	San Francisco	Dr. Schwarz	6
Music	San Francisco	Mr. Stricklen	5
Parliamentary Law	Berkeley	Miss Fleenor	30
Parliamentary Law	Oakland (3 classes)	Miss Fleenor	29
Parliamentary Law	San Francisco	Miss Fleenor	9
Penal Code of California	Berkeley	Prof. Kidd	31
Public Speaking	Oakland	Mr. Sweet	11
Public Speaking	San Francisco	Mr. Drury	15
Rhetoric	Berkeley	Mr. Culp	10
Spanish	San Francisco (2 classes)	Miss Dodge	31
Spanish	San Mateo	Miss Dodge	12
Spanish	Oakland	Miss Dodge	16
Stenography	Berkeley (4 classes)	Mr. Armstrong	175
Typewriting	Berkeley (6 classes)	Mr. Armstrong	

Total number of classes organized 66

Total attendance 1483

CLASSES IN THE STATE PRISONS

Class work in the prison at Folsom has been carried on semi-officially for some time, and with the most satisfactory results. The Director visited the prison, made arrangements with the Warden to initiate the work, and secured Mr. M. J. Jacobs, teacher in mathematics in the Berkeley High School, to assist in the organization of classes and to give some instruction. Mr. Jacobs spends each week-end at the prison. His services are given without cost except his expenses, which are borne by the prison board. The status of the work at Folsom on June 1st, according to his report, was as follows:

Classes	Enrollment
Arithmetic (Elementary), (3 classes)	48
Arithmetic (Shop)	10
Algebra (Advanced)	6
Bookkeeping (Advanced)	6
Drawing	12
English (5 classes)	95
Geography	5
Grammar	22
Penmanship	26
Spanish (2 classes)	80
Stenography	14
<hr/>	
Total enrollment in prison classes	324
Total number of prison classes	18
Total number of teachers	15

Twenty-two men have registered for class instruction in mechanical drawing, but as yet we are unable to provide the instruction. A non-graded class, for the benefit of men who, being employed during the day, are unable to attend the regular classes, has been formed. A class in French is also under process of organization:

Concerning the work of these classes, the Warden, Captain J. J. Smith, writes as follows:

"In reply to your request for a frank statement concerning the University Extension work which is being done here at the prison, I want to assure you of my high regard for this endeavor and my pride in it.

Success has attended the work of Mr. M. J. Jacobs to a marked degree, it seems to me, and we owe much to him for his efforts.

“A very large percentage of the men who take up educational work here appear to be earnest in their attempt to secure some knowledge by which to better themselves. We have found it necessary to limit the students to one course of instruction at a time, and with this restriction the regular work of the prison is interfered with very little by the instruction. Whenever men are found who do not take sufficient interest to keep up their lessons they are removed from the class. This happens very seldom, however. On the whole, the work has proved a complete success, and I hope it may continue.”

At the prison in San Quentin we have, for some time, provided instruction by correspondence. Four hundred and ten students have enrolled. Only recently have we begun to organize the men in classes. Before undertaking to do so we wanted to be sure of the success of the work in Folsom. Classes are being organized, however, at the present time. The expressed desire of the men to join the classes, and the active interest of the Warden, Mr. J. A. Johnston, in the movement promise results equal to, if they do not surpass, those at Folsom. The chaplain writes as follows: “It is a fact, in which I take much pleasure, that a considerable number of the students are doing very creditable work, and are evincing an earnest desire to profit to the utmost from the advantages given them by the University.”

To assist the prisoners in the purchase of books, a small sum has been contributed by individuals whose sympathies have been enlisted in this particular attempt to extend the usefulness of the University. The services of the Bureau have been rendered without charge.

BUREAU OF CORRESPONDENCE INSTRUCTION

By the correspondence method of instruction we have been able to extend educational opportunities to men and women in all parts of the state, many of whom could not possibly avail themselves of class instruction. The method of instruction is, briefly, as follows: A course of lessons or assignments, usually fifteen in number, is carefully outlined in a given subject. Each

assignment includes reading references both general and required, and contains a list of questions based upon the required reading. The first and second assignments of the course are sent to the student who has previously registered for instruction. He does the required reading, answers in writing the questions of the assignment, and sends his paper to the instructor for correction and helpful suggestions. The corrected paper is sent back to the student with an additional assignment. Meantime the student is working on the lesson which remains in his hands. This interchange of lessons and corrected papers is continued until the course is completed, at which time the student is required to pass an examination. If the course is parallel to a regular University course, University credit on the same basis as for work done in the University is allowed for the work. We find that, as a rule, the students undertaking work by correspondence are unusually earnest and persistent. Their work is generally of a high character.

In the work of this Bureau, as in that of all the others, we have been obliged to rely practically upon the voluntary co-operation of the different University departments. The extent of the co-operation freely granted has been highly gratifying. Eighteen departments have offered a total of 104 courses. Courses are offered in the following fields: Anthropology, Astronomy, Domestic Science, Drawing, Education, English, Geography, German, Latin, Law, Mathematics, Music, Oriental Languages, Philosophy, Political Science, Romanic Languages, Stenography and Typewriting, and Zoology.

On August 1, 1913, when the work of this Bureau began, there were on hand about 800 inquiries which had been received through the summer months. During the year 8000 additional inquiries have been received. Bulletins have been sent to all inquirers, and personal letters to most of them. The total number of bulletins sent out is about 17,000, half of which have been distributed through the medium of various libraries and at the office in California Hall. The total number of enrollments is 1506. (One enrollment means one student in one course.) The total number of persons enrolled is 1343.

Enrollments to date are distributed as follows:

	Men	Women	Total
Anthropology	3	4	7
Astronomy .....	.....	1	1
Chinese	1	.....	1
Commercial Law	20	8	28
Domestic Science .....	.....	24	24
Education	60	39	99
English	151	202	353
Freehand Drawing	6	10	16
French	6	21	27
Geography	7	.....	7
German	2	12	14
Instrumental Drawing	34	2	36
Italian	4	3	7
Japanese .....	.....	1	1
Latin	2	4	6
Mathematics	140	27	167
Musie	14	31	45
Philosophy	22	11	33
Political Science	31	18	49
Spanish	24	28	52
Stenography	20	23	43
Typewriting	5	3	8
Zoology	5	5	10
Not specified	20	6	26
	<hr/> 577	<hr/> 483	<hr/> 1060

(In the foregoing figures enrollments received from prisoners in San Quentin and Represa have been omitted, since these enrollments do not represent an activity which this Bureau will be likely to carry on permanently. The chief value of these figures is that they will serve as the basis of estimates of future work.)

The following analysis of the statistics of this Bureau, with the accompanying suggestions, is presented by Dr. C. I. Lewis, who during the past year has served most efficiently as the Secretary of the Bureau of Correspondence Instruction:

“Number of men 1015, number of women 491; that is, 68½ per cent of the total enrollment has been by men. One reason

for the comparatively large number of men is the \$5 fee which has been charged.

“Of the total number enrolled 18 per cent are teachers.

“Those engaged in the direction of business enterprises or some profession constitute 5 per cent.

“Four hundred and forty-six prisoners from San Quentin and Folsom are enrolled.

“Of the total number of students 5 per cent hold a degree from some college or university.

“As might be expected, the courses at present offered appeal principally to the professional classes. Examination of the records of those who have dropped courses without completing them show that the same classes of persons have been better able to carry on the work for which they have enrolled.

“An accurate estimate of the percentage of persons enrolling who will complete their courses cannot be given at the present time. Before a trustworthy estimate on this topic can be made the organization of the teaching must be perfected, since every irregularity on our part militates against completion of the work by those who enroll. Though the instruction has gone more smoothly than might be expected in the first year's work, still irregularities on our part have contributed considerably to the delay in completion of work. Of the 1506 enrolled, 123 have for one reason or another deferred work to a later date. Fifty-five have definitely cancelled the enrollment, and 279 have not been heard from for such a length of time as to make it probable that they will not complete it. If we neglect the number who have deferred work, and compare those who have completed it with those who cannot be expected to do so, we may estimate that about one enrollment in three will be carried to completion. This is, I believe, a large percentage for correspondence instruction.

“It is particularly important if we are to meet the demands for correspondence courses that courses in History, Economics, and Accounting be added to those already offered. The subjects most demanded in the curricula for the A.B. and B.L. degrees will then be represented. Outside of those subjects, the largest

number of inquiries for courses not yet given are for work in engineering. Four hundred inquiries for instruction in this subject have been received. In reply to these we have pointed out that a considerable knowledge of mathematics was needed as preparation for further engineering work and that the mathematics regularly offered to resident engineering students could be taken at present by correspondence. As a result forty-two of those who inquired for engineering have enrolled in mathematics. It is highly desirable that correspondence work should be offered by the engineering departments so far as their subjects can be taught by this method. The number at present enrolled in mathematics gives a good indication of the number who would be prepared to pursue such work profitably, and indicates that this need could be fully met by a comparatively modest offering of courses for the ensuing year.

"Your secretary wishes here to express his appreciation of the support which has been given to the correspondence courses by the Faculty in the Colleges of Letters and Social Sciences. Considering the fact that correspondence courses appealed to many of them as a somewhat doubtful experiment, the support given has been notably efficient and generous. Without it it would have been impossible to enroll this perhaps unusually large number of students in the first year of the work.

"Aside from this support, perhaps the most important factor in the success of the Bureau of Correspondence Instruction has been the publicity which newspapers of the state have given the subject of University Extension. A direct connection between the publication of University news-letters on this subject and the receipt of enrollments is easily traced.

"For the future success of the Bureau of Correspondence Instruction, your secretary regards it as especially essential that the office business shall be thoughtfully and carefully administered. The business of instruction by correspondence requires an enormous amount of care in the keeping of records and the other details of office work. The quality and efficiency of correspondence instruction can be impaired quite as easily by lack of such care as by lack of competent teaching. To this end, I

regard it as important that at least two persons beside the secretary should be given salaries for the coming year which are decidedly larger than the ordinary salary for clerk or stenographer. This is advisable in order to ensure continuity of service, which is necessary above all else. The person having charge of enrollment records and the person who has general charge of the office force so far as the detail of routine work is concerned should be permanent employees, who are capable of growing up with the work, and whose business capabilities are commensurate with the probable future scope of this work."

To this I will add that the work of this Bureau, to be as successful as it deserves to be, that is, to render the service it is capable of rendering, will require the appointment of a number of instructors, an increasing number, too, whose whole time may be at the service of this Bureau in planning, preparing, and conducting courses.

The correspondence method of instruction is no longer an experiment. Nineteen state universities have adopted it and, as a rule, grant university credit for correspondence work. The testimony from all these institutions is practically to the same effect, that is, that the work of students by correspondence has amply justified the provision of this kind of instruction.

BUREAU OF LECTURES

During the year we have provided through this Bureau twenty-one lecture courses, consisting in series of four to twelve lectures. Single lectures arranged for by the Bureau, of which there have been several, are not included in this report. The work of the year has revealed plainly the necessity of a staff of lecturers who can devote their primary attention to instruction through public lectures. The successful work of the Bureau in any large measure depends almost entirely on securing a staff of lecturers who possess the rather unusual combination of university ideals and training and the ability to present a university subject in a manner that will be popularly interesting. Considering the fact that we have been obliged to rely for the delivery of lecture courses upon members of the general faculty,

who have taken the time from their regular work and given their services for a merely nominal compensation, the number of courses arranged for is gratifying. These courses are as follows:

Place	No. of Lectures	Average Attendance		
Colusa	6	50	Mr. Neuhaus	Art in Every-day Life
Long Beach	6	200	Prof. T. H. Reed	Applied Municipal Science
Long Beach	6	150	Prof. Bolton	Spain in the Southwest
Los Angeles	6	75	Prof. Bolton	Spain in the Southwest
Los Angeles	6	150	Prof. Peixotto	Household and the Community with special reference to the Problem of Poverty
Monrovia	6	60	Prof. Ritter	The Sea and its Inhabitants
Occidental College	3	60	Prof. Ritter	The Sea and its Inhabitants
Ontario	6	300	Prof. T. H. Reed	Applied Municipal Science
Orange County	5	60	Prof. Ritter	The Sea and its Inhabitants
Pasadena	6	60	Prof. Ritter	The Sea and its Inhabitants
Riverside	6	60	Prof. Ritter	The Sea and its Inhabitants
San Francisco	4	35	Dr. W. Brown	The Psychology of Advertising
Santa Barbara	6	250	Prof. T. H. Reed	Applied Municipal Science
Santa Barbara	6	400	Prof. T. H. Reed	Applied Municipal Science
Stockton	6	75	Dr. Paroni	Child Hygiene
Stockton	6	40	Profs. Howerth and Barrows	Social Betterment
Venice	3	60	Prof. Ritter	The Sea and its Inhabitants
Lone	12	75	On <i>special subjects</i> by the following: Profs. Boone, Howerth, Rugh, Reed, Hays, Mrs. Jaffa	
San Jose	6	200	On <i>special subjects</i> by the following: Profs. Boone, Reed, Plehn, Barrows, Cheney, Mr. Robinson	
Santa Rosa	7	150	On <i>special subjects</i> by the following: Prof. Armes, Dr. Beckwith, Dr. Force, Prof. Hays, Kroeber, Kurtz, Reed	
Vallejo	6	500	On <i>special subjects</i> by the following: Profs. Holmes, Barrows, Force, Kroeber, Reed, Rugh	

SUMMARY

Number of courses given	21
Number of lectures given	125
Number of lecturers	19
Total attendance upon lectures	15,540

BUREAU OF PUBLIC DISCUSSION

This Bureau was established to furnish assistance to individuals and organizations interested in debate, or in the study of public questions, and to stimulate interest in such questions and their intelligent study by individuals and organized groups of individuals. It suggests questions for discussion, provides briefs and bibliographies, and, with the assistance of the librarians of the state, endeavors to bring the material necessary to intelligent discussion of a given question into the hands of those who apply for such material. It is the purpose of the Bureau soon to suggest to the various debating organizations already formed in the state a State Debating League, and to offer its assistance in the formation of such a league.

The Secretary of this Bureau, Miss Nadine Crump, reports that in her judgment "the work of the next year should include, first, the arrangement for the entire time of one secretary; second, the employment of some one skilled in the making of bibliographies; third, the organization of a State Debating League; fourth, the establishment of as many as six discussion centers; fifth, the revision of bibliographies secured during the last year, and the securing of many more, especially on the vital questions of the day. The inquiries indicate that the people have an insatiable thirst for knowledge on the vital questions of the day. To be of service to them, the information needs to be sent promptly. Obviously, neither the Congressional Library nor the State Library can meet these demands. Since the announcement, a short time ago, that we could furnish bibliographies on some of the questions upon which the people will vote at the next general election the demand has been great. For some days we sent out an average of seventy-five per day.

"It would be a great advantage to the work of the Bureau of Public Discussion if a closer connection could be made between this Bureau and the different departments of the University, as well as the debating clubs already formed, in order that material from the departments and from the clubs could be placed at the disposal of the Bureau. The Bureau could, in turn, often render service to those departments."

Miss Crump is also general organizer of this division. As such she reports 20 classes organized, 10 lecture courses placed, 28 addresses, and the organization of a discussion center in Richmond.

That the people of the state have been most appreciative of the work done by this Bureau, especially the people of the smaller towns and rural communities, who constitute a majority of those to whom service has been rendered, is abundantly testified to by the letters that have been received.

BUREAU OF INFORMATION AND MUNICIPAL REFERENCE

Concerning the progress and work of this Bureau, which really includes two bureaus under one direction, the Secretary, Mr. Joseph H. Quire, reports as follows:

(a) *The Bureau of Information* was first organized as a central agency through which all inquiries addressed to the University might be answered. It has served seventy-four persons to April 15, 1914. Inquiries have come from individuals not having access to libraries, schools, or other agencies from which the information might have been secured. The Bureau was able to render valuable service to the Industrial Welfare Commission during the period of its organization. At the request of the Commission, the Bureau was able to send a professor before the Commission to advise it regarding installation of a minimum wage in California.

The Bureau has also been able to assist in the organization of a Junior College at the Placer County High School in Auburn, California. Six inquiries have been received from residents outside the state, and have been satisfactorily answered. The work and usefulness of the Bureau could be greatly increased if members of the University Faculty would refer all inquiries which are received by them to the Bureau. It has been the plan to build up in the office of the Bureau a record file from which most of the routine inquiries which are now sent to individual members of the Faculty, and which needlessly tax their time in replying, could be referred to the Bureau for answer. If this greater use would be made, the functions of the Bureau

would not only be more fully understood throughout the state, but members of the Faculty would be relieved of a large amount of correspondence. The Bureau has had the assistance of the University Library and the California State Libraries in performing its functions.

(b) *The Bureau of Municipal Reference* has been organized to make available the information which is now to be found at the University to all people of the state, particularly city officials, who may desire assistance in solving their local municipal problems. The work of the Bureau has consisted principally in arranging a satisfactory working agreement with the several agencies which now exist throughout the state, and perform a similar work. The Bureau has secured the active co-operation and assistance of the League of California Municipalities. A special committee of this body has been appointed to confer with the Bureau, and two profitable conferences have already been held. At a meeting specially called for the purpose efforts were made by University Extension officials to determine exactly what service was most desired by city officials and in how far the University would be able to fulfill their demands. The conferences have resulted in defining the distinction between professional work and the educational work, which latter only the University can undertake to do. Some fear was at first expressed by members of the Faculty that the University would encroach upon the field of private experts. This was removed, we hope, by the assertions of the representatives of California cities that the University's aid was solicited only in cases where advice was to be given, and that no demand would be made that University experts would perform professional services. Out of these conferences has come the decision that the Bureau can aid to the greater advantage by pursuing the following lines of work:

1. The maintenance, under the direction and assistance of the Library, of a special library on municipal government.

2. The answering from this library of questions relative to municipal government and municipal activity.

3. The preparation of bulletins on municipal subjects of special interest to the people of the state.

4. The reference for answer to members of the University Faculty of questions that cannot be answered from the special library.

5. The making, when possible, of impartial field investigations on those municipal subjects for which there has been a repeated demand for information.

Because of the desire to work in harmony with the Faculty of the University and the cities of the state the Bureau has not at the outset been able to encourage widespread use of the facilities at its command. To April 15th, however, fifty-one inquiries on municipal subjects had been answered. The principal topics on which information has been desired are the following:

Antiseptic tanks.

City manager plan.

Commission form of government.

Municipal dance halls.

Municipal markets.

Recall of municipal officials.

Voting by mail.

The Bureau is at present preparing, in response to requests from city officials of the Bay cities, a bulletin on a municipal market, the material for which has been secured through the assistance of the California State Library, the University Library, and members of the Faculty. It is planned to follow this bulletin with several others treating on topics for which there is a widespread demand.

DENTAL INSTITUTE

During the week beginning on Monday, January 5, 1914, a Dental Institute was held under the joint auspices of the University Extension Division and the College of Dentistry.

Dr. Charles K. Teter, of Cleveland, Ohio, was the chief instructor. His subject was "Nitrous Oxide and Oxygen," "Anaesthesia and Analgesia." He gave a series of five lectures and conducted clinics each day. A class of 217 members of the dental profession was organized, representing a territory cover-

ing a radius of 200 miles from San Francisco, with representatives from Nevada and Honolulu. The first meeting was held in Room 101, California Hall, on Monday morning, January 5th, at 10 o'clock. Professor A. O. Leuschner welcomed the Institute on behalf of the University, the Director of the University Extension Division spoke on the general subject of "University Extension," and Dr. Charles K. Teter delivered a lecture on the "History of the Use of Anaesthetics." Succeeding meetings were held at the Affiliated Colleges. There was a lecture at 10 o'clock each morning, followed by a period of questioning by the members of the class for a half hour which served as a discussion. The class was divided into five sections for the afternoon clinics, which convened from 2 until 5 o'clock. An abundance of clinical material from the college clinic presented a great variety of cases. The presentation of the clinics to smaller groups enabled the clinician to present all phases of the work so that all could see well, and interesting clinical discussions followed. This plan also permitted the members in the immediate vicinity to take care of their practice, although the members from out-of-town districts would have preferred to attend all sections, a procedure which seemed impracticable.

The plan of holding such an institute annually at the beginning of the year received the unanimous endorsement of the profession as represented by the attendance. It will make it possible for them to depend upon having instruction brought to them from reliable sources at no great loss of time and at no great expenditure of money.

The success of this institute is suggestive of possibilities open to this division in the way of arranging for similar institutes for members of other professions, and particularly for those employed in the various industries.

OPPORTUNITIES FOR EXPANSION

In view of the fact that the expansion of the work of this division will be impossible until a special appropriation is granted, attention will here be called only to the most pressing demands of the state for services not yet provided for.

(a) *Bureau of Visual Instruction.*—The most profitable additional service that the division could render the people is, perhaps, that which would be offered by the establishment of a Bureau of Visual Instruction. The function of such a bureau would be to collect, maintain and loan to schools and other responsible organizations lantern slides and moving picture films, particularly series of slides and films, illustrating the various high school subjects; to assemble and exhibit in the different towns and cities of the state collections of maps, charts, apparatus, etc., with the object of conveying valuable information to the public with respect to health, public improvements, etc. The maintenance of a loan collection of slides and moving picture films is perhaps the most urgent need. Indeed, one-third of the high schools of the state have expressed a desire that such a collection be maintained by the University. The establishment and maintenance of a bureau of this kind that would do credit to the University and serve the high schools generally would require an annual appropriation of not less than \$10,000.

(b) *High School Extension.*—A second important service that may be rendered by this division with the necessary financial support is the stimulation, organization and general supervision of High School Extension work throughout the state. Our brief experience in correspondence instruction has revealed a large and general demand for such instruction on high school subjects. It comes usually from adults who feel that they have not had a chance to secure an education. Now this demand might well be supplied by the high schools of the state operating in conjunction with the Bureau of Correspondence Instruction of this division. This would involve great labor in the preparation of lesson assignments and in the correction of papers. Boards of Education might be induced, perhaps, to set aside a sum for the compensation of teachers who take part in such work. Indeed, some of these boards have already agreed to do so. There is, perhaps, nothing that would more rapidly promote general popular intelligence than High School Extension carried on by the different schools of the state under the direction and with the co-operation of this division. This, how-

ever, cannot be undertaken without an appropriation. I estimate the expenses of this work for the first year at \$5000.

Vocational Courses.—To bring the University into the most helpful relationship to the people of the state, particularly to the working people, it is essential that courses in the various industrial occupations be offered by this division in University Extension classes, in lectures, and by correspondence. There should be additional courses in business subjects; courses in mechanical, electrical, steam, stationary and civil engineering and various other industrial subjects. As yet, however, we are able to offer almost nothing of this kind, owing to the lack of the necessary instructional force. One of the most pressing needs of this division is at least five instructors to organize and conduct University Extension classes and correspondence courses in these various vocational subjects. This will involve an annual expenditure of at least ten thousand dollars.

Many other large opportunities for the expansion of University Extension service are obvious enough to those of us who are engaged in the work. But it is perhaps needless to mention them until there is some prospect of our being able to follow them up. For the present we must confine ourselves to pushing the work that has already been begun.

FINANCIAL REPORT

INCOME

Advanced from general University fund	\$7,448.26*
Receipts from Bureau of Class Instruction	4,177.85
Receipts from Bureau of Correspondence Instruction	5,339.95
Receipts from Bureau of Lectures	2,517.00
Gross receipts	\$19,483.06
Less refunds	333.45
Net receipts	\$19,149.61

EXPENDITURES

Salaries	\$5,900.00
Assistance	7,848.89
Equipment	1,018.63
Expenses	4,382.09
Total expenditures	19,149.61

* A guaranty of \$10,000 was made from general University funds to cover expenditures. Of this amount \$7,448.26 only was actually paid out.

In concluding this report I should like to express my appreciation of the interest you have manifested in University Extension, and of your clear perception of the difficulties with which we have been obliged to contend. I wish, moreover, to express appreciation of the co-operation we have received from members of the University Faculty, and particularly to express my heartfelt gratitude for the loyal and efficient support and service of the secretaries of the respective bureaus and the entire teaching and administrative force, including the stenographers in the office.

During the year there has been developed among those of us who have been intimately associated in the work an esprit de corps that will go far to increase the efficiency of the division during the second year of its existence.

Respectfully submitted.

I. W. HOWERTH,
Director.

HASTINGS COLLEGE OF THE LAW

SAN FRANCISCO, July 1, 1914.

To the President of the University,

SIR: I beg to report that the year just closing has been a successful one. It is the first year that the increased requirements for matriculation of a two-years' course at a university were put in force, with the result of a greatly diminished number of matriculants. With all that, we had a total registration of ninety-four, most of it made up of very good material. We are now giving thirty-four hours of classroom work a week, exclusive of moot court work, and we hope to increase that. The Board of Governors of the Bar Association has given us the free use of its large library, and as we have also the use of the library of the San Francisco Law Library Association, both of them close at hand, we have all the library facilities we need. Our graduating class of the present year numbers thirty.

Respectfully submitted,

EDWARD R. TAYLOR,
Dean.

UNIVERSITY INFIRMARY

BERKELEY, July 1, 1914.

To the President of the University,

SIR: I have the honor to submit to you the report of the University Infirmary for the academic year 1913-14, pointing out briefly the various features of growth and development of that institution.

The Infirmary during the last year has proved how practical have been the dreams of its founder. Keeping pace with the growth of the University it has increased its staff and capacity so that it has been able to meet every need that has arisen, and today stands as an efficient example of socialized medicine. Of the students enrolled, 76.7 per cent have received treatment in the Dispensary during the past year. Of these, 2511 were men and 1618 were women, a total gain of 628 over the preceding year. This gain is due to three factors: the growth of the student body, the increasing popularity of socialized medicine, and the teachings in preventive medicine which have been instilled into the student mind in the hygiene lectures.

In the house-patient department 641 students have been cared for at varying periods, the average time being 5.3 days. On several occasions the wards, added one year ago, have been occupied. We have found that the hospital has proved its value especially to students who have developed appendicitis and tuberculosis. Early diagnosis and prompt treatment in such cases is all important.

Particularly gratifying have been the results obtained in those who have contracted tuberculosis. The ultimate outcome of

some of these cases has promised little, but by taking them from the classroom we have protected their fellow students, and by nursing them through the acute stage of the disease, teaching them meanwhile how to live, we have been able to instill in them hope and also to prolong their lives, if not to effect a cure. We particularly need a social service department similar to that which has been developed in some of the large hospitals in the East. There should be some general supervision of tubercular cases by someone who is fully acquainted with climate and sanatoria, and who also will communicate with friends in regard to specific conditions of each case. We have found ourselves not equipped to meet this new and growing feature of medical work. After a patient leaves the Infirmary he passes beyond our reach and often it is then his real treatment should begin.

Not unlike the social extension work of our large modern hospitals, the Associated Women Students of the University of California have instituted within the last two years an emergency fund, regulated by a committee composed of the Dean of Women, the Physician of Women, the President of the Associated Women Students, and two other representative women students, and created also to meet certain definite needs:

(1) For the treatment of any case of extended illness, such as tuberculosis, in a self-supporting woman student requiring institutional care not in the domain of the Infirmary.

(2) As a loan or gift for absolutely necessary operations or corrective appliances for self-supporting women students.

One tubercular girl is being aided while at Arequepa Sanatorium for tuberculosis at Fairfax since August, 1912.

Three new departments have been added this year fully equipped for the best service. A specialist in eye, ear, nose and throat work has proved a great help in the Infirmary, as is shown by the crowded clinic. The orthopedic department, limited largely to women students, has proved itself a success from the beginning, and will be open to all students this coming year. With the recent arrival of a new X-ray machine and all the necessary equipment for such a department, we hope to perfect

this important specialty, thereby adding much to the efficiency of the medical and surgical service.

Numerous letters of further inquiry have followed the visits by those in charge of student health. The success of this work has stimulated the organization of similar institutions in other colleges and universities.

Each year has found the Infirmary building just a little too small for the comfort of those working within, and so each year alterations and additions have been necessary. This year has been no exception. The operating room has been enlarged and the walls painted light green instead of the usual white, a color which greatly diminishes the eye strain and adds to the comfort of the surgeon. The new Teter apparatus makes it possible for the gas oxygen anaesthesia to be given in cases in which the older methods are unsafe. The large dining room and kitchen, almost completed, will be greatly appreciated by the Infirmary family, who feel probably more than anyone else the pressure of the increasing demands upon the hospital.

The closing of the year finds the Infirmary firmly established as a department vitally necessary to the students of this University. Guided by the ideals of him, whose untiring efforts made it what it is, this institution cannot fail to move ahead toward the mark at which it was aimed.

Following are reports rendered for the year by those in charge of the special branches of work in the Infirmary—Immunization; Eye, Ear, Nose and Throat; and Orthopedics.

Respectfully submitted,

A. M. MEADS,

Infirmary Physician.

IMMUNIZATION SERVICE

COWPOX VACCINATION

During the academic year 1913-14 the skin reaction after cowpox vaccination was recognized as evidence of immunity, with the result that no students showing the reaction on admission to the University were compelled to undergo subsequent vaccination, as was formerly the custom. This has markedly simplified the administrative control of cowpox vaccination. During the year only five out of 310 unvaccinated intrants showed the reaction of immunity. Three of these five gave a history of smallpox, one a history of chicken pox (?), and one denied either infection.

Of 109 persons previously vaccinated, but showing no scars, thirty showed the skin reaction, one, only, giving a history of smallpox. It, therefore, follows that repeated vaccination with a virus incapable of producing the lesions of vaccinia in a given individual may result in the formation of sufficient antibodies in that individual to produce the early reaction. No person is declared immune who does not show the characteristic reaction. In a previously unvaccinated person, failure to respond to vaccination should cast strong suspicion on either the technique or the virus. On the other hand, the production of the reaction in a previously unvaccinated person is presumptive evidence of previous smallpox. In view of these facts the following definition for successful vaccination has been adopted.

Cowpox Vaccination.—Successful vaccination is defined as visible evidence of a normal vaccinia; provided, however, that if the person under observation has had smallpox or has had a previous vaccination, visible evidence of a modified vaccinia (sometimes known as and called vaccinoid) or evidence of any recognized reaction of immunity from cowpox shall constitute successful vaccination.

Tables presenting statistics of the cowpox vaccination for the year will be found with other statistics of the Infirmary, on pages 309-347.

TYPHOID VACCINATION

Typhoid vaccination has been continued for six hours weekly throughout the year. The Gay-Claypole vaccine has been used exclusively and has been remarkably free from unpleasant symptoms. Vaccination is open to students, faculty members, and faculty families. Certificates of typhoid vaccination are issued when desired. These certificates are based on the presence of the typhoidin skin reaction in the individual one month after vaccination.

Tables presenting statistics of the typhoid vaccination for the year will be found with other statistics of the Infirmary, on pages 309-347.

Respectfully submitted,

J. N. FORCE,

Assistant Professor of Epidemiology.

EYE, EAR, NOSE, AND THROAT

This department after its first year has demonstrated and met a need among the students seeking medical attention at the Infirmary. The large number of students suffering from the various types of eye-strain, with its long train of symptoms; and from the defective breathing of obstructive nasal catarrh, with its inhibition of mental concentration—these two, with their deleterious effects on the general health, and particularly on the student's capacity for close work, justify this department.

But eye-strain and chronic obstructive nose conditions are only a part of the eye, ear, nose and throat ills that are brought to the Infirmary. And that they are brought is evidenced by the fact that this department, the hours of which are from 9-11 A.M. daily, is kept solidly busy to 12 M. usually, and to 12:30 P.M. frequently.

Eye-strain, due to errors of refraction and muscular unbalance, is on the increase because of the increased amount of

work the eyes are put to. The normal eye functionates without effort only when looking at a distance; near vision requires a corresponding amount of ocular accommodation. The increasing burden put upon the eye by a modern education requires an increasing expenditure of muscular and nervous energy. The eye is the greatest victim of present day enlightenment, and cannot readjust itself suddenly to the added burden imposed by the present generation. While a new type of eye must slowly be evolved, the present type should be protected, and the only means is the exercise of a proper eye hygiene and the early recognition and correction of ocular defects. Many entering the University after the physically changeful high school years are suffering from unsuspected or neglected eye defects. When told that it is their privilege to come for relief they have responded to a large extent, and because of the privilege, they come early. The majority of students who came for their first eye examination were freshmen. It is this early attention which prevents future trouble.

The eye and ear room at the Infirmary have been fitted up for this work with special equipment. The surgical and diagnostic instruments are being obtained gradually as necessity arises. The shape of the room, though it could be improved, is very satisfactory.

During the last term about one thousand diagnoses were made, and many more visits for treatment; about two hundred and fifty prescriptions for glasses written; about fifty operations performed, eighteen submucous resections of deviated septi, eight turbinectomies, ten septal spurs, five cases of polypus, one case of adenoids (local), one mastoid fistula, one simple mastoid operation, and five eye operations.

This brief resumé is evidence that the students have taken advantage of this new department, and will increasingly do so, as knowledge of and confidence in the department grows.

Respectfully submitted,

MILTON H. SCHUTZ,

Assistant Ophthalmologist.

ORTHOPEDIC WORK

The examination of the feet of the women students for the past year has emphasized the necessity for orthopedic treatment. More than 50 per cent of women students have weak feet, the greater number of which has already acquired the deformity of flat foot. Out of one hundred and thirty-eight students entering in January, 1914, 68.8 per cent had abnormal feet. Thirty cases, of the more pronounced type of flat foot, have been satisfactorily treated since last August with specially made steel arch supports, and fully five hundred students have had advice, special strapping or padding and prescribed shoes as the case demanded. There is found to be an involvement of the knee and spinal column in a small percentage of cases. For the coming year the problem of working out the possible dependence of the so-called normal spinal curvature on the condition of the feet is to be undertaken.

Respectfully submitted,

KATE R. GOMPERTZ,
Assistant Medical Examiner.

UNIVERSITY LIBRARY

BERKELEY, July 1, 1914.

To the President of the University,

SIR: We have the honor to submit the following report on the University Library for the twelve months ending June 30, 1914.

The accessions of new books were as follows:

By purchase:	Volumes	Volumes
General fund	9,850	
Alumnus fund	54	
Class of 1900 fund	56	
Class of 1902 fund	2	
History 1 fund	575	
Denicke fund	62	
Gaelic League fund	34	
Jucksch fund	39	
Knights of St. Patrick fund	73	
Mary Lake fund	169	
Meyer fund	45	
Moffitt fund	75	
Reese fund	418	
Sather fund	955	
Spreckels fund	14	
Summer Session grant	190	
For departmental libraries	3,263	
By binding of periodicals	1,718	17,592
By exchange		1,198
By gift: Thomas Rutherford Bacon Memorial.....	576	
J. C. Cebrian	421	
Miscellaneous	2,548	3,545
Total volumes received		22,325
Total volumes in library		282,072

The department of periodicals reports current serials received :

By purchase	1,192	
By exchange	2,779	
By gift	2,584	
Total	—	6,555
Unbound pamphlets received	1,772	
Dissertations and theses	4,751	
Total	—	6,523

The following sets of periodicals have been purchased :

Accountant, 31 vols.; Arbeiten aus d. zool. institut zu Würzburg, 10 vols.; Asiatic society of Japan, 35 vols.; Astronomische nachrichten, 31 vols. (completing set); Gesellschaft für aeltere deutsche geschichtskunde, 39 vols.; Journal international d'archéologie numismatique, 15 vols.; Music, 22 vols.; Malacological society of London, 10 vols.; Petermann's mittheilungen, Ergänzungshefte nos. 39-137 (completing set); Revue de l'histoire diplomatique, 22 vols.; Revue de l'histoire des religions, 48 vols.; Rivista di mineralogia italiana, 28 vols.; Royal philosophical society of Glasgow, 31 vols.; Zeitschrift für kirchengeschichte, 23 vols.; Zeitschrift d. ungarischen geol. gesellschaft, 30 vols.

The following important works also have been bought :

Acta sanctorum, 66 vols.; Biochemisches hand-lexikon; La collection Kelekian des étoffes d'orient; Dehis und Bezold, Die kirchliche baukunst des abendlandes; Fischbach, Textile ornaments; Flora Danica, Handbuch der biochemischen arbeitsmethoden; Lucretius, Codex Leidensis; Mansi, Sacrorum conciliorum collectio, 52 vols.; Mommsen, Histoire de la monnaie romaine; Riezler, Weissgrundige attische lekythen; Sainte-Marthe, Gallia christiana; Sharp, Genera and species of birds; Whitman, Complete writings.

Gifts.—The only gift of money to the library was the fourth present of \$100 by the Knights of St. Patrick for the purchase of Irish books.

Mr. J. C. Cebrian has made a third valuable gift of over 400 volumes. Especially worthy of mention are sets of Sociedad de bibliófilos madrileños, Real sociedad geográfica, Real academia de historia. The rarer books are Acosta, Tractado de las drogas, 1578; Alcalá, Tractado de los prestamos que pasan entre mercaderes, 1546; Lapidaria de Alfonso X; Valera, Coronica, 1538; Villalon, Tractado de cambios, 1546; and Spanish translations of

Vergil, 1577 and 1586. Among the important books are Balaguer, *Historia de los trovadores*; Blanco y Sanchez, *Bibliografía pedagógica*; and Fernández de Bethencourt, *Monarquía española*. Included in this gift are a set of forty-nine volumes of Spanish translations of Greek and Latin classics; fifteen Spanish lexicographies, and a considerable collection of the Spanish mystics.

Mrs. Phoebe A. Hearst presented the very beautiful, privately printed, Ffoulke Collection of tapestries, and the 1822 folio edition of Hogarth's Works.

About fifty California authors have given autographed copies of their published writings for the special collection of California literature. James Hopper ('98) has furnished a bibliography of his numerous stories as published in periodicals, as well as separates of many of them. We will secure as many others as possible and bind to form unique volumes, especially interesting as having illustrations not usually reproduced when published in book form. He also gave the original manuscript of his "The Other House" in first, second, and final drafts—aptly exemplifying method in authorship.

The books of the late Thomas Rutherford Bacon were purchased (at the suggestion of Mr. Duncan McDuffie) from his estate by his former students, and presented to the Library. Only a portion (576 volumes) has yet been accessioned.

Certain other gifts, and some parts of gifts here mentioned, have not been accessioned as yet. These will appear in the next report.

Inter-library Loans.—Again we record a large increase in the number of transactions of this kind. We have made 119 loans (317 volumes), and have borrowed fifty-six times (100 volumes). These figures do not include loans to departments of the University located elsewhere than in Berkeley. The cost of loans to institutions situated within the first three zones has been greatly reduced by our utilization of the parcels post.

Accessions Department.—In 1911 the Library Committee announced the policy of largely increasing the allotment for filling gaps in existing sets of serial publications and purchasing new sets of prime importance. The expenditure was to extend

over eight years, with an annual allotment of \$5000. Many causes have combined to prevent the carrying out in full of the details of this plan, but a relatively generous allotment has been made each year since 1911, and the working value of the library has been greatly increased thereby. The evils of the procedure first adopted—that of seeking suggestions from the departments of instruction, dividing the allotment on a basis of estimated costs in accordance with replies received from the departments, and of advertising for the titles thus selected—were demonstrated promptly, and in March, 1914, the committee approved a more rational plan proposed by Professor Frederick J. Teggart. From departmental suggestions and the periodical records there was compiled a list of desiderata, from which, after elimination of titles possibly obtainable by exchange, the librarians were authorized to purchase as opportunity should offer up to the amount of the year's allotment for the purpose. Special emphasis was laid on the filling of gaps of date later than 1900, half the allotment being restricted to this field; while to prevent new gaps a rule was adopted barring the purchase of any new set, or the completion of any old set, without provision for its continuance as a current subscription or exchange. The treatment of this problem from the standpoint of the University Library rather than from that of a number of separate departments, and the emphasis on completeness after a certain definite date, insure a much more useful development of the collection at minimum expense. With the latitude permitted by the present procedure it is possible to wait for favorable opportunities and to take advantage of them when they occur, instead of insuring high prices by ransacking Europe for a few specified items under the necessity of purchasing them, if at all, within the fiscal year.

Another innovation of the year, the result of which is yet undetermined, is the abolition of the general fund for periodical subscriptions. The periodicals now listed will be divided among the departments and the general library, and the allotments will be correspondingly increased. It will hereafter be a simple matter to determine the proportion of the book fund actually expended in the interest of any department—a controverted

question in former years—while the departments may exercise greater freedom in the expenditure of their allotments, which will be available for the purchase of either books or periodicals. The one great advantage of the old general fund plan, continuity of periodical files, is secured by the ruling that no subscription now carried or hereafter assumed may be discontinued without consent of the Library Committee.

Catalogue Department.—Class J (Political science, corresponding generally to 256–287 of the old classification), and E and F (American history, General and Local, corresponding generally to 144–255 of the old classification) have been reclassified and recatalogued, and classes G (Geography, Ethnology, Anthropology) and H (Social sciences, Economics, etc.) are in process; it is estimated that the new catalogue contained on June 1 some 52,500 cards. The numbers of volumes in the reclassified sections are approximately as follows: E—4100, F—4000, J—4300; total, 11,300. As these figures include neither the great collection of west coast material in the Bancroft Library, nor many groups and individual books which will be drawn into one or other of these classes as other sections of the old classification are attacked; and as the great bulk of national and state government documents has been excluded temporarily; the total by no means represents the resources of the University, or even of the general library, in these fields.

Work on the new catalogue is progressing at the rate of approximately one thousand volumes per month; a disappointing showing which seems to be due to several causes. The comparatively modest annual appropriation requested for this purpose, \$5000, was so reduced in the 1913–14 budget that it was possible to engage only three trained cataloguers instead of four.* During the year this force was reduced for two considerable periods by illness and necessary absence. Preliminary organization and the readjustments inevitable to the inception of an undertaking

* The work is so organized that an additional cataloguer would increase the output by considerably more than one-third. Provision for an additional cataloguer would prove an economy in the long run by reducing the time required for the completion of the work. It is unfortunate that the library appropriation for 1914–15 does not afford relief.

of this nature, and the decision to keep the old catalogue abreast of the new work as explained below, further delayed matters. The arrangement with a local firm to print on our order titles for which printed cards are not otherwise obtainable, has not proven wholly satisfactory, only 330 titles having appeared up to June 30. Improvement may be expected when the University Printing Office is in a position to handle this work, but without the increased assistance mentioned above it will hardly be possible to produce more than one hundred titles per month under the most favorable conditions. The Library of Congress is printing cards from copy furnished by this library for about 10 per cent of the titles for which printed cards are not already obtainable; it is improbable that this percentage will be materially increased. We have been able to obtain printed cards for approximately 90 per cent of titles in the subjects covered; in other subjects the proportion will be much smaller and our own printing problem will increase accordingly.

In order that there may be one theoretically complete record of the contents of the library, it has been thought wise to keep up the old author catalogue by the addition of cards for new books in the reclassified sections of the library, and by changing the call-numbers on cards for old books as reclassification proceeds. The old classed catalogue is being retired by degrees. As rapidly as a section of the library is reclassified the corresponding cards are removed from the classed catalogue, and in their place is inserted a guide referring to the new dictionary catalogue. Although this arrangement lessens the speed and increases the expense of recataloguing, it minimizes annoyance to readers, relieves the pressure in the reference and circulation departments, and reduces the chance of error in the accessions department.

The Library of Congress depository catalogue is now practically complete in a single alphabetical file, with the exception of one group of cards (Agr.) not yet received from Washington. Since July 1, 1913, approximately 77,000 cards have been received and filed in this catalogue. In addition, reference cards for anonymous books, variations in authors' names, pseudonyms.

etc., between five and six thousand in all, have been prepared for about one-sixth of the alphabet (A-Colles). In the other depository files, which have not been combined as yet, the following additions have been made during the fiscal year:

	Additions 1913-14	Approximate total	Arrangement		
Harvard University Library cards	6,078	16,480	In	single	alphabet.
John Crerar Library cards	8,035	101,040	"	"	"
University of Chicago cards	1,500	2,330	"	"	"
Royal Library, Berlin, cards	25,042	86,580	*"	"	"

*Except duplicate set covering German dissertations, which is filed by serial number.

Reference and Loan Departments.—The steadily increasing use of the Library is taxing the resources of these departments to the utmost. When conditions permit, the reference department will embark on certain lines of work the need for which has been made evident; among other things, the compilation of lists of books for purchase in fields in which the library is weak, and the indexing of the University of California Experiment Station bulletins and circulars (begun but discontinued for lack of time) and of certain other publications of local interest, such as "Pacific Municipalities" and the "Transactions of the Commonwealth Club of California."

With the installation of four new tables the limit of the capacity of the reading room has been reached. There are thirty-five tables, all now provided with reading lamps, each designed to seat twelve readers, but actually seating fifteen. The table capacity of 525 is increased at the busier seasons to about 570 by placing chairs at the ends of the room. Less bulky furniture differently arranged might accommodate more readers, but at the expense of the beauty and convenience of the room. If the use of the library continues to increase as it has done in the last two years, no half-way measures will meet the situation. The addition to the reading room in the form of an L on the east, recommended in the last report (page 17), should probably be extended to the rear wall of the building, with a screen or temporary partition cutting off the southern end until the entire

space is needed—a question of very few years. The opening of this new room would necessitate additional assistance, as the same attendants could not supervise both wings.

Although there seems to be no practicable way to ascertain the number of persons using the library, certain statistics have been compiled which will give some idea of its use. The number of inquiries requiring research, recorded at the reference desk during the nine months, October, 1913–June, 1914, was 11,600, divided as follows:

October	1,401
November	1,493
December.....	998
January	1,168
February	1,813
March	1,797
April	1,602
May	422
June	906
	<hr/>
	11,600

Circulation statistics have been kept since January, 1913. They are as follows, not including those of periodicals issued from the periodical room:

1913	Day use	Home use	Overnight use	Total
January	5,607	4,722	145	10,474
February	10,139	5,654	417	16,210
March	13,018	5,929	564	19,511
April	13,110	5,369	879	19,358
May	3,077	2,476	117	5,670
June	1,528	2,047	49	3,624
July	5,703	3,961	447	10,111
August	4,279	3,555	65	7,899
September	15,322	6,224	493	22,039
October	16,936	6,484	589	24,009
November	15,744	5,939	838	22,521
December	9,938	5,161	484	15,583
	<hr/>	<hr/>	<hr/>	<hr/>
Total	114,401	57,521	5,087	177,009

1913	Day use	Home use	Overnight use	Total
January	9,320	5,560	193	15,073
February	16,121	6,288	628	23,037
March	16,607	7,048	681	24,336
April	17,095	6,482	932	24,509
May	2,725	2,841	161	5,727
June	2,321	2,967	51	5,339
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Total	64,189	31,186	2,646	98,021

74,847 January-June, 1913.

98,021 January-June, 1914.

23,174 Increase in 1914.

These figures show an increase of nearly 43 per cent in January and February and about 25 per cent in March and April; very little in May, but nearly 50 per cent in June. The total increase for the six months is about 32 per cent. The very heavy demand early in the semester and the falling off at the end are due no doubt in large part to weather conditions.

Trouble has arisen in past years from the tendency of students to leave Berkeley after Commencement without having returned their library books, or to draw books for vacation use and fail to terminate the vacation. To obviate these difficulties, students wishing to draw books during the summer vacation of 1912 were required to deposit with the University cashier one dollar for each book; returnable upon its surrender. This practice proved annoying to readers and undoubtedly reduced the vacation use of books. Accordingly the deposit idea was abandoned for the following summer, and books were issued to any student with a good library record signing the following application form:

Date

I hereby make application to draw books from the University Library during the summer vacation of 1913. I agree to return all books immediately and at my own expense if recalled; otherwise, on or before August 18, 1913. I further agree to assume full financial responsibility for loss or damage to any book so drawn until its return to the Library and the cancellation of the charge.

Signature

Vacation address

Application approved:

The new plan has worked out successfully. Students to the number of 346 took advantage of it last summer; this year the number had reached 485 by June 30.

Shelf Department.—During the year the shelf department has shelved approximately 202,000 volumes in the main stack and 18,000 volumes in the reading and seminar rooms in regular routine. In addition, the progress of reclassification has necessitated the reshelving of some 12,000 volumes, while shifting consequent upon the crowded condition of the stack required the handling of about 60,000 more. Approximately 6,000 volumes have been sent to various departmental libraries, on temporary deposit or otherwise.

The annual inventory completed last December showed 199 volumes missing from the stack. This loss is mainly due to abuse of stack privileges, and is one reason for that strictness in regard to the granting of privileges which has caused some complaint from students. It must be acknowledged, however, that by no means all of the culprits are students. The general rule regarding admission to the stack is as follows: Members of the faculty through the grade of instructor, and registered candidates for the degree Ph.D. are admitted freely; the latter by permit, the former without. Other graduate students are admitted by permit for limited periods, upon request of an instructor. Permits may be issued also to certain persons not connected with the University, as for instance to members of the faculties of other universities and colleges, or to government officials or members of scientific and other learned societies engaged in research. Undergraduates may enter the stack in company of an instructor, or, for good and sufficient reason shown, may secure permits for short periods; in general, they are expected to work in the reading room. Aside from the question of loss of books, use of the stack by a large number of persons involves serious interference with the work of the desk attendants, through whom the great majority of readers is served, and who are expected to perform this service rapidly and accurately. It is quite true that "a book misplaced is practically lost"; and were the number of such temporary losses due to carelessness

of readers in the stack added to the record of permanent losses, the figure above would be much larger.

During the calendar year 1913 nineteen books were reported lost by readers; these were paid for, and replaced if possible. Eight were taken from the shelves on which new books are exhibited in the reading room. Losses from the reserve shelves for the college year 1913-14 numbered 65 volumes for the first and 95 volumes for the second semester; a total increase of 24 volumes over last year.

Progress is reported on the map catalogue. Over 4000 cards have been made, and the completion of the work during the coming year is anticipated.

The shelf department also has in hand the listing of unbound college and university publications, etc., now shelved in the cage on the first stack floor. About 3000 pieces have been listed to date.

The contents of the main stack is now receiving the first thorough cleaning since its installation in the summer of 1911. While being cleaned each volume is inspected for needed repairs. The work was begun shortly after the close of college, and probably will be finished by fall.

Periodical Department.—Parts of books in process of publication and other unbound material received on continuation order, known collectively as "stock-case material," are shelved, while awaiting completion and binding, on the upper floor of the periodical room stack, which is not open to readers. The recording of these publications, which are present in considerable numbers, has never been satisfactory; readers have been misled, and some duplication has resulted. During the year the periodical department has listed this material on cards which, for ease of reference, have been filed with the serial record in the periodical room. Entries will be made in the public catalogue referring readers to this record for full information regarding unbound parts.

The handling of exchanges will be transferred this summer from the University Press to the library. While the work will no doubt suffer from the loss of Mr. Allen's unusual qualifications, the change should result in certain advantages to the

library. which in connection with its own system of records, should be able to handle certain phases of the work more systematically and more easily than they could be handled otherwise. The field holds great possibilities, but its development is out of the question with the limited assistance provided for the coming year. However, a beginning will be made and a systematic campaign outlined, to be undertaken when circumstances permit.

The large and rapidly increasing collection of duplicates presents a problem which should be solved soon. These duplicates are in the main overflow from gifts to the library, and contain much which might be put to good use. At present packing-cases containing duplicates fill a large part of the basement. This mass of material should be weeded out and listed, and what is not needed in departmental libraries or those of affiliated institutions should be exchanged or sold. Unfortunately this requires time and labor; not a great deal of either, but more than can be devoted to it in the face of more pressing demands.

Departmental Libraries.—The annual inspection and inventory of departmental libraries were carried on under difficulties. There has been no systematic inspection heretofore, and some of the collections proved to be badly disorganized. In some departments books were scattered broadcast and generally without record; it took two assistants ten days to check the books belonging to one department. In all, forty-one working days were devoted to the inspection of fifteen departmental libraries, embracing all of importance except those of the College of Law and of the departments of Anthropology, Astronomy, and Geology. In addition to these, there remain some fourteen so-called departmental libraries, generally comprising a handful of books shelved in the office of the head of the department. Administration would be greatly simplified by merging the small collections with the general library. Books required by instructors for office use might be drawn in the usual manner, so there is no reason why such a change need prove detrimental to departmental interests. The existing arrangement is cumbersome when applied to small groups of books, while entries in the public catalogue for books shelved in locations affording no

facilities for their use, but not subject to call from the general library, are a constant source of misunderstanding and irritation to readers.

Some of the departmental libraries inspected were in good condition, well kept and properly supervised. Those requiring it were put in order, uncatalogued books wherever found were catalogued, and a uniform charging system was established in those departments allowing home use of books. Another year the work of inspection will be much simpler and consequently faster.

Library Staff.—The following changes have occurred on the staff of the library since June 30, 1914, probationary service not included:

Appointments:

- Ella K. Walker, senior assistant, November 1, 1913.
- Inez F. Sachs, senior assistant, May 14, 1914.
- Kristine Seeborg, junior assistant, November 1, 1913.
- Marion E. Houston, junior assistant, January 1, 1914.
- Mabel H. Kelman, junior assistant, March 9, 1914.
- Elizabeth Lowry, junior assistant, April 15, 1914.
- Wm. John Shaw, attendant, November 1, 1913.

Resignations:

- Thaxter C. Thayer, senior assistant, April 2, 1914.
- Frances S. C. James, senior assistant, April 18, 1914.
- Ella K. Walker, senior assistant, June 21, 1914.
- Edna H. Simmons, junior assistant, October 31, 1914.
- Hubert G. Baugh, junior assistant, March 9, 1914.
- Mabel H. Coombs (Mrs. Marion Barnes), junior assistant, June 30, 1914.

Relations with Students.—Losses from open shelves in the reading room since January 1, 1912, total 388 volumes. These are as a rule the books most in demand by students; hence their safety would seem quite as much a matter of student as of library interest. Despite several conferences with student officers, however, no effective plan of co-operation has evolved. While expressing entire willingness to discipline proven offenders, the student officers are unwilling to take action to discover them. If the library authorities are forced to move in the matter one of two steps will be taken. Either the reserve books will be shelved

in the stack and issued only on signed slip presented at the loan desk, or readers will be required to deposit all books, satchels, etc., before entering the reading room and to pass inspection at the door on leaving it. Both plans are opposed to the spirit in which the library authorities wish to administer their trust, and the adoption of either would mean serious inconvenience for large bodies of readers. This being so, the question is submitted, will it not be better for the students to take charge of this matter than for the library authorities to do so? There is no question that the students can end the trouble if they will take hold of it; and it does not seem reasonable that a few selfish or wrongly-disposed individuals should be allowed to involve the entire student body.

Despite the greatly increased use of the library, the number of books retained overtime and subject to penalty is but slightly larger than last year. The figures are given below:

1913-14	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1st notice	49	317	473	324	290	127	376	458	385	83	4	2,886
2nd notice	15	41	58	65	48	21	60	47	60	20	..	435
3rd notice	7	14	21	28	17	20	29	21	24	3	2	186
	71	372	552	417	355	168	465	526	469	106	6	3,507

In accordance with a suggestion of the Welfare Committee, every book issued for home use hereafter will have the date for its return stamped on a slip attached to the flyleaf. This should tend to reduce the number of penalties incurred through oversight.

Library School.—The summer course in library methods this year is in charge of Miss Mary E. Robbins, recently head of the Simmons College Library School, assisted by Miss Coulter and Mr. Mitchell of our staff, and Miss Marion L. Horton, librarian of the John C. Fremont High School, Oakland. More than sixty applications for admission were received, of which twenty-seven were accepted, nearly all from women engaged in library work in California, but including three librarians from Oregon and one recent graduate of this University. In addition, four mem-

bers of our staff are availing themselves of the opportunity for training in their respective fields of work.

The early establishment of a library school, offering a course extending through the college year with University credit, is again recommended. A working plan for such a course was submitted to the President on January 25, 1913. The number of inquiries received at the library during the year is evidence of the extent of the demand, if evidence is needed. It has been necessary to refer many prospective students to the State Library or the Riverside Public Library, both of which during the year have opened courses in library training, in order in some degree to relieve this crying need of the Pacific Coast. It is unfortunate that this University, the most suitable place for such work, so far has been unable to undertake it. The opportunity is still open, and it is greatly to be hoped that the American Library Association meeting in Berkeley next summer may learn of the founding of the library school of the University of California.

Respectfully submitted,

J. C. ROWELL,
Librarian.

HAROLD L. LEUPP,
Associate Librarian.

LICK ASTRONOMICAL DEPARTMENT

(LICK OBSERVATORY)

MOUNT HAMILTON, July 1, 1914.

To the President of the University,

SIR: I have the honor to submit herewith my report for the period July 1, 1913, to May 31, 1914.

It is a pleasure to be able to say that a good start has been made in removing the arrears of publication. Volume VII, *Publications of the Lick Observatory*, containing papers by members of the Berkeley Astronomical Department, whose printing began in the year 1902, has now been completed. It was distributed to our correspondents in May, 1914. The cost of this volume has been very high, absorbing in fact all the legislative appropriations available in several years for astronomical publication.

Volume XI, *Publications of the Lick Observatory*, containing reproductions and brief descriptions of Professor Barnard's Milky Way and comet photographs, is now in the binding stage in the State Printing Office, and we hope to distribute it to our correspondents in July or August, 1914. The cost of the plates, printing and paper for the 129 full-page illustrations was borne by subscriptions received from friends of the Observatory, by Professor Barnard's personal contributions, and, to a minor degree, by funds taken from the Lick Observatory maintenance budget. The printing of the text and the binding of the volumes have proceeded on the basis of a Regents' appropriation.

In April, 1914, the Regents made a liberal appropriation in support of Lick Observatory printing, to become available on July 1, 1914. It is hoped that the printing of Volume XII, *Publications of the Lick Observatory*, to contain Mr. Aitken's

observations and studies of the more interesting visual double stars which he made during the years 1896–1913, may begin in July and proceed without interruption. The contents of this volume, thanks to the excellence of Mr. Aitken's programme of work and to his industry in following that programme, will form one of the notable contributions to our knowledge of double-star systems.

We were planning that the reproductions of about one hundred photographs of Halley's comet and of many representative solar-eclipse photographs obtained by our expeditions in the years 1893, 1898, 1900, 1901, 1905, and 1908, might be secured this summer, preliminary to the publication of the photographs and accompanying texts in volume form. However, the appropriation does not become available until after the departure of Messrs. Campbell and Curtis for duty on the Crocker Eclipse Expedition to Russia; and as they are the ones directly interested in the securing of these photographs and in the examination of the engraver's proofs, the beginning of this work must be delayed until the fall months.

Last year's arrears of publication of the *Lick Observatory Bulletins* have been removed in the present year by the issue of Nos. 228–253 inclusive, twenty-six numbers in all. Ten short bulletins, making a total of sixteen quarto pages, have been issued for the Berkeley Astronomical Department.

The improvements planned in 1913 by Mr. Curtis for increasing the efficiency of the Crossley reflector, as described in my last annual report, were made in the latter half of 1913. All the manipulations necessary to the process of making observations with the reflector are now controlled electrically from the movable observing platform, so that the observer need not leave the platform during the work of an entire night. The relief from the fatigue and loss of time involved in the very numerous ascents and descents of the observing ladder under former conditions is very marked. A description of the improvements, accompanied by an illustration of the instrument in its new form, is contained in the *Publications of the Astronomical Society of the Pacific*, Volume 26.

My last report referred pointedly to the fact that the 36-inch Crossley reflector, so well known from its important contributions to astronomical science, and still an exceedingly useful instrument, is rapidly becoming one of the smaller reflecting telescopes devoted systematically to research. Several reflecting telescopes, varying from forty-two to one hundred inches in diameter, are now in use by or under construction for other observatories. I respectfully repeat and urge that a responsibility rests upon those in authority to maintain the Lick Observatory in the advance rank of astronomical institutions. A reflecting telescope comparable in power with those now under construction elsewhere should be added to its equipment.

We have many minor needs; several have been described in preceding reports:

1. The two brick reservoirs on Kepler Peak, which form one-half the capacity for the storage of drinking water, have suffered damages from our three severe earthquakes, and they call for annual repairs. They should be replaced by a steel tank, if possible, of larger capacity. The small wooden reservoirs at the spring in the south canyon are uneconomical, and they should be replaced by a steel tank.

2. The present inefficient and dangerous method of heating scientific buildings, shops, and residences by individual stoves in nearly every room should be replaced by a central heating system, utilizing hot water or steam, on the basis of a special legislative appropriation for this purpose.

3. The elevating floor in the dome of the 36-inch refractor has been operated for twenty-six years by hydraulic machinery. The system is giving trouble, frequent adjustments have to be made, and the elevating motion is very slow. Similar floors in other observatories are operated safely, rapidly, and economically by electric motors. The system should be transformed to use electric power.

4. A Zeiss stereocomparator. We have been hoping to secure this instrument for fully ten years past.

5. A recording micrometer eyepiece for the Repsold meridian circle, in order to bring this important instrument up to date.

I plan to make this purchase in the coming year from maintenance funds.

6. A special lens for out-of-focus photography of the stars, to assist in the study of variable stars.

7. A photo-electric-cell photometer, which promises to become one of the astronomer's most sensitive and important instruments, for the study of variable stars.

8. Several additional assistants, with principal duties in the day-work of measuring astronomical photographs and in making the computations connected therewith.

A thunderstorm of great intensity passed directly over the summit of Mount Hamilton on the night of February 18-19. Lightning struck the great dome once certainly and twice probably, and several additional discharges occurred within the Observatory community. The electric lighting and power system and the telephone system were damaged to a minor degree at a great many points, in essentially all of the buildings and residences. Fortunately there were no personal injuries. An expert is preparing advice as to precautions against future damages from this source.

Extensive preparations have been made to observe the total solar eclipse of August 21, 1914, in continuation of observations secured at the favorable eclipses occurring since the opening of the Lick Observatory in 1888. Regent William H. Crocker has generously given the sum of \$5800 to defray the expense. Director Campbell and Astronomer Curtis will leave Mount Hamilton about June 10, to establish the observing station in the vicinity of the city of Kiev, Russia. Twelve or more volunteer assistants, partly from this country and partly from Europe, will join the expedition to assist in the making of the photographs at the time of totality.

It has seemed to many astronomers that the time has come to determine the accurate positions of the fainter stars, say those fainter than the eighth visual magnitude, by means of photographs instead of by the prevailing meridian-circle visual method; reserving the visual method for extremely accurate observations of the brighter stars. The Allegheny Observatory

is undertaking to apply the photographic method to a narrow zone of faint stars extending around the sky; and Professor Tucker of our staff is securing the meridian-circle observations of six hundred of the brighter stars distributed uniformly throughout this zone, to form the skeleton, so to speak, upon which the positions of the fainter stars will depend. The four thousand individual observations required in our share of the programme, and the computations related thereto, will consume the resources of our meridian-circle department during the current year. Twelve hundred and sixty of the observations have been secured by Mr. Tucker since January 28 of this year.

In the prosecution of our double star survey in the current academic year Professor Aitken has discovered 245 double stars, and has made accurate measures of 470 doubles. His discoveries to date number 2845 pairs. Professor Hussey co-operated in the survey during the years 1899–1905, and discovered 1328 pairs, making a total of 4173 for the two observers. In essentially all of these pairs the two component stars are less than five seconds of arc apart. In the three-fifths of the sky thus far covered by the survey there are fewer than seven thousand such pairs as bright as the ninth magnitude. Fully sixty per cent of all known double stars of this class in the region observed have been found in the progress of our survey. From Mount Hamilton the observations can be made to advantage as far south as declination -14° for the winter sky and declination -22° for the summer sky. In the area extending from the north pole of the sky to the southern limits just described, only 1500 stars, or approximately one per cent of the whole number as bright as the ninth magnitude, remain to be examined. The work will be brought to a close before the end of the present calendar year. This double-star survey, which was begun by Mr. Aitken in April, 1899, should be extended over the neglected southern hemisphere of the sky, by means of a suitably equipped expedition—a desideratum to which all astronomers cordially assent—and Mr. Aitken is the logical observer for this duty. Financial conditions have prevented me from perfecting plans to this end.

Mr. Aitken has given much time in the past year to preparing the data obtained from his double-star observations for a statistical study of the distribution and other characteristics of double stars. This work is in such form that the discussion for the northern sky can proceed promptly following the completion of the survey.

Mr. Aitken has continued, as opportunity offered, the accurate observations of the well-known short-period double stars.

Professor Wright has continued the work of photographing a large number of representative stellar spectra in order to illustrate very completely the great variety of spectral types. These photographs are taken in three sections, to insure that the entire available spectrum, from the ultra-violet to the red, may be recorded in sharp focus. It is proposed later to publish as many as possible of the results, to illustrate the apparent sequence of stellar evolution.

Mr. Wright has completed his programme of observations on the wave-lengths of bright lines in the spectra of the nebulae, including the wave-lengths of many lines not noted by other observers. These observations are of special interest at the present time in connection with certain conceptions of the constitution of matter. Professor Nicholson, an English physicist, has apparently been able to explain the origin of many bright lines in the nebular spectrum on the basis of simple assumptions concerning electrically charged particles in the nebulae which give rise to the light radiations.

Mr. Wright has continued his observations of the spectrum of the new star in *Gemini*, making them doubtless by far the most extensive observations of the new star that have been secured. An important paper on the subject is practically ready for publication. The observations of new stars in the past generation have inclined astronomers to the view that they represent the results of some celestial catastrophe, such as the collision or close approach of two stars, or the passage of a star through some form of resisting medium. However, these very detailed and accurate observations of the spectrum of *Nova Geminorum* seem to add complexity to the general problem of novae.

Professor Curtis has continued the photographic survey of the more prominent nebulae, with the Crossley reflector. The descriptions of 109 such nebulae were published by him recently. Mr. Curtis has also been rephotographing many of the brightest spiral nebulae which were photographed by Professor Keeler in the years 1898-1900. His purpose has been the important one of determining whether these objects have moved appreciably across the sky in the past fifteen years, or whether they have rotated through appreciable angles in this interval. These questions concern vitally the greater one of whether the spiral nebulae are to be regarded as a part of our own stellar universe or whether, as some astronomers have believed, they are separate universes of stars so remote from our universe that we see them merely as unresolved small areas of light. The comparative measures of the early and the recent photographs are now in process of study, and the results are not ready for announcement.

The detailed preparations for observing the solar eclipse in Russia have been made chiefly by Mr. Curtis.

The work of the D. O. Mills Expedition in the southern hemisphere has been vigorously prosecuted by Dr. Wilson and his assistants. The programme has embraced the securing of many 2-prism spectrograms of the stars between 5 and $5\frac{1}{2}$ visual magnitudes; of 1-prism spectrograms of the brighter stars whose spectral lines are too hazy for accurate measurement on the basis of 2-prism dispersion; and of 1-prism spectrograms for determining the radial velocities of the planetary nebulae. Essentially all of the plates have been measured in duplicate. About twenty-five spectroscopic double stars have been discovered since the date of my last report; the greater number during the closing months of Dr. Moore's administration, which continued to August 9, 1913. and the remainder during Dr. Wilson's administration.

Messrs. Moore and Sanford have published an extremely interesting investigation of the spectrum of *Eta Carinae*, a southern star whose violent fluctuations in brightness have made it an object of close attention for more than two centuries. The value of this study lies principally in its close connection with

the general problem of new stars, inasmuch as *Eta Carinae* has many of the characteristics of novae and is thought to have appeared originally as a nova.

Mr. Moore has published a thorough investigation of the variable and spectroscopic binary star *Delta Cephei*.

The principal spectrographic observations at Mount Hamilton in the period covered by this report have had for their purpose the determination of the radial velocities of the planetary and certain other nebulae, in continuation of Professor Keeler's visual observations of fourteen nebulae with the 36-inch refractor in the years 1890-91. Keeler's observations showed that the Great Nebula in *Orion* is substantially at rest in space, as far as motion to or from the position occupied by our solar system is concerned, and that the planetary nebulae are traveling rapidly. Studies of stellar velocities, as observed with the Mills' spectrographs at Mount Hamilton and in Chile, had led to the important discovery in 1910 that the average stellar velocities increase with advancing spectral types. It was natural that the results for the stars should be compared with those available for the nebulae; and it was found that the average velocities of the planetary nebulae are very much higher than those of the stars supposedly young, and appreciably higher than those of the stars presumed to be oldest. As a result of these facts, serious doubt fell upon the generally accepted theory, dating back to the days of Sir William Herschel, that the stars are formed from planetary nebulae by processes of evolution. It became important to observe the radial velocities of as great a number of the nebulae as possible. More than one hundred nebular spectrograms have been secured for this purpose with the 36-inch refractor and a 1-prism spectrograph in the past year, and occasional observations of the planetary nebulae have been made in Chile during the past three years. We now have quite accurate determinations of the radial velocities of forty nebulae altogether. They confirm the earlier result that planetary nebulae are traveling with speeds far beyond those of the stars in general. The average radial velocity of the forty observed nebulae is in excess of 30 kilometers per second, whereas the average radial velocities of the stars

vary from 6 kilometers per second for those supposedly youngest up to 17 kilometers per second for those supposedly oldest. The effect upon our ideas of the connection existing between planetary nebulae and the stars is revolutionary; apparently the stars have not been evolved from planetary nebulae.

It is of interest to note that one planetary nebula observed at Mount Hamilton has a velocity of recession amounting to approximately 150 kilometers per second, and that another planetary nebula observed at Santiago has a velocity of approach equal to 136 kilometers per second. Several nebulae have velocities to or from us in excess of 60 kilometers per second.

In many other respects also the observations of nebulae have assumed high importance, and it is intended to devote many of our resources to the subject during the coming year.

A considerable number of stellar spectrograms has been obtained with 1-prism and 3-prism dispersion at Mount Hamilton, in the past year, to supplement various phases of our stellar radial-velocity programme, and many minor studies of the spectrograms have been conducted by Dr. Moore, Dr. Paddock, and Miss Hobe.

Comets have been observed for accurate position as follows:

Comet <i>b</i> 1913—	Comet <i>e</i> 1913—
6 nights, Aitken	2 nights, Aitken
4 nights, Haynes	Comet <i>f</i> 1913—
Comet <i>c</i> 1913—	5 nights, Haynes
5 nights, Aitken	Comet <i>a</i> 1914—
5 nights, Haynes	1 night, Aitken
Comet <i>d</i> 1913—	5 nights, Haynes
4 nights, Aitken	Comet <i>b</i> 1914—
3 nights, Haynes	1 night, Aitken
	1 night, Haynes

In nearly all cases these observations have been used by the Berkeley Astronomical Department in computing the orbits of the comets concerned.

The Martin Kellogg Fellowship has been filled during the present year by Dr. Eli Stuart Haynes. His principal investi-

gation concerns the well-known variable star *SZ Tauri*. A noted student of variable stars proposed the hypothesis that this star is of ellipsoidal form, and in rotation about one of its shorter axes, with the effect that maximum light occurs when the star presents itself broadside to us, and minimum brightness when the longer axis points toward us. If this be the true cause of the observed variations and the star be single, the radial velocity of the star should be constant. Mr. Haynes obtained twenty-nine spectrograms of the star, and his measures of them establish that the radial velocity is variable. The maximum brightness occurs when the star has the maximum velocity of approach, and the minimum brightness when the star has its maximum velocity of recession. These characteristics assign the object to the well known Cepheid type of variation.

Mr. Haynes has assisted continuously in the observation of nebular radial velocities.

Mr. Haynes has observed asteroid No. 694 on five nights and Jupiter's sixth satellite on five nights.

Mr. Haynes has been appointed Associate Professor of Astronomy in Beloit College.

Mr. Aitken conducted the astronomical classes in the Summer Session of 1913 in the University.

Mr. Campbell represented the University at the meeting of the International Union for Co-operation in Solar Research at Bonn in July and August, 1913, and at the meeting of the Astronomische Gesellschaft at Hamburg in August, 1913.

Six lectures were delivered before the class in general astronomy in the Berkeley Astronomical Department in the spring of 1914 by Messrs. Tucker, Aitken and Campbell.

The Director acknowledges the continued cordial support of the staff, both at Mount Hamilton and at Santiago, Chile.

Respectfully submitted,

W. W. CAMPBELL,
Director of the Lick Observatory.

DEAN OF THE LOWER DIVISION

BERKELEY, July 1, 1914.

To the President of the University,

SIR: I have the honor to submit the following Dean's Report for the year 1913-14.

The matters entrusted to the care of this office are: a semi-annual inspection of those houses whose managers apply for recognition in our lists of approved boarding and rooming houses for men, together with the publication of such lists; the supervision of study-lists of freshmen and sophomores; the revision of study-lists of such students as may fall behind in their University work; the general supervision of the system of advisers for freshman men; the issuing of excuses for absences, for reasons other than medical; the maintenance of useful relations with men's clubs and fraternities; and such other matters as pertain primarily to the students of the Lower Division.

This work has been made easy by the cordial support and co-operation of the Recorder and of the other officers of administration, as well as by the cheerful assistance of the faculty committees on Outside Relations and on Study Lists. Professor Bray and Mr. W. G. Reed have rendered great service to this office and to the University by the preparation of a new statement of matriculation requirements.

In connection with our inspection of rooming accommodations for students we have had frequent occasion to ask the assistance of the Berkeley Fire Department. Thanks to the zeal and efforts of Chiefs Kenny and Rose, many private lodging houses are now provided with fire escapes, or have otherwise been made more secure against fire hazard and against the

consequent hazard of loss of life. We have, during the past few months, secured the consent of all the men's clubs and fraternities to a fire inspection. All their houses have been visited by the city's officers and such recommendations as were necessary for safeguarding life have been made. There are still, however, some "converted" houses, which are occupied by students, which are not on our approved lists, and which are not, in every instance, as safe as could be desired. These houses we have not been able to inspect, but no effort is being spared to find a way to bring them up to the desired standard of safety. In this connection I wish to recommend that no houses or dormitories be posted for rent on the bulletin boards of the University, except such as shall have received the approval of the Committee on Outside Relations.

It is a matter of profound satisfaction that, while the number of students in the University is increasing so rapidly, the number of disqualified students is relatively much less than a few years ago. This general improvement in scholarship is due, in part, to the rigid maintenance of the "eight unit" rule, but more especially, to the more careful supervision of study lists, to the efficiency of the freshman advisors, and to the awakened interest and concern of the fraternities and clubs in the matter of scholarship.

Relations with student organizations have been most pleasant and satisfactory. It has been possible to turn over the decision of many questions concerning the dropping of courses and even of matters of discipline to the fraternity to which a delinquent student belongs. In no case has this confidence been violated or an unwise decision made. I believe the time is not far distant when we shall recognize the fraternity as a formal unit in our administrative system,—when each such organization will be charged with such matters as the supervision of study lists of its own members and pledges, and when action in such matters as adding and dropping of courses, and even in discipline, will be referred to the organization concerned. The fraternity is a perfectly natural thing. It furnishes a natural unit for such purposes as may make it useful to the University. I believe it

is possible, by a combination of the good features of the fraternity and of the system of freshman advisors, to develop something far better than either as it now exists. But to save the fraternity from itself and to save it to the University, the University must take the lead by inviting it into partnership and entrusting it with some real, administrative responsibilities.

Respectfully submitted,

OLIVER M. WASHBURN,
Dean of the Lower Division.

MEDICAL SCHOOL*

SAN FRANCISCO, July 1, 1914.

To the President of the University,

SIR: I have the honor to present the following report of the Medical School and of its various departments:

The most important event in the Medical School during the past year has been the formal opening of the George Williams Hooper Institute for Medical Research and the appointment as Director of Dr. George H. Whipple, Associate Professor of Pathology in Johns Hopkins Medical School. As the Director of the Institute will be a member of the medical faculty with title of Professor of Research Medicine and a member of the medical board of the University Hospital, the Institute will be in close touch with the work of the School and cannot help but serve as a source of help and inspiration to the clinical departments. That it will not interfere in any way with the development of research in other departments is evident from the action of the Regents of the University, who in the coming year have provided a pure research position in the Department of Pathology.

From the remarkable growth and extramural expansion in the departments of Gynecology and Obstetrics and Pediatrics, now presided over by professors devoting their whole time to the University, it becomes more and more evident that the departments of Medicine and Surgery should be put upon a full-time basis as soon as possible. Other serious needs of the School are a department of Preventive Medicine and Hygiene and one of Pharmacology and Therapeutics.

Final plans for the new University Hospital of 210 beds are now in preparation and building should begin within three

* The report of the Department of Medicine in Los Angeles will be printed in the President's Report for 1914-15, covering the biennium 1913-15.

months. The additional material provided here and in the new San Francisco Hospital is needed badly, as the total number of students is constantly increasing, the entrance classes now numbering about fifty.

Beginning with next year the second year students come over to San Francisco for instruction during the entire second semester and as soon as the Hospital is constructed the entire Medical School will be concentrated on the present site in San Francisco. Teaching in the Department of Medicine is helped greatly by the possibility of beginning instruction in physical diagnosis and propaedeutics of medicine in the second year. It has been possible this year to put an instructor on full-time basis and the provision for a Resident in Medicine in the Hospital adds to the efficiency of the teaching staff. Alterations in the Out-Patient Department have been demanded once again this semester by the increasing number of patients and students, and advantage has been taken of these changes to provide proper resting and reading rooms for men and women students. New equipment, in microscopes and physical instruments, has been provided and a cardiograph installed. The Dental School has kindly offered the use of its large laboratory for student instruction and with the additional room given the Children's Clinic in the Department of Pharmacy it is hoped that the needs of the School are sufficiently provided for until the Hospital is finished.

DEPARTMENTS OF THE MEDICAL SCHOOL

SURGERY

During the past year the work in this department comprising surgery and surgical specialties has progressed favorably, despite the limited number of hospital beds at our disposal. Every attempt has been made to rotate cases rapidly, so that a fairly acute service has been maintained. The increase in the student body and the changes in the general curriculum have necessitated more teaching hours, but I am pleased to state that the response on the part of the teaching staff has been most gratifying.

Many operations have been performed and the aseptic technic

of the operating room has been kept at a high standard of excellence. The X-ray department has been called upon almost to its utmost capacity, considering the small space which could be allotted to it. The work at the San Francisco Hospital, under the charge of Dr. Brunn, has been excellently carried on, suffering as it has the handicap of a small amount of material and limited facilities. The various surgical Out-Patients Departments have shown a remarkable growth, thanks to the faithfulness of those in charge.

Our hopes are now centered on the early completion of the new University of California Hospital and the occupancy of the new San Francisco Hospital. Our material needs will then be met, for a time at least, and we can better our efforts for the good of mankind.

Respectfully submitted,

WALLACE I. TERRY,
Professor of Surgery.

OBSTETRICS AND GYNECOLOGY

During the past year the Department of Obstetrics and Gynecology has broadened its courses in gynecological pathology and in ante-partum examination of obstetrical patients. A number of beds in the hospital are now available for women awaiting confinement, so that students may receive systematic instruction in abdominal palpation and pelvimetry. Such instruction greatly enhances the value of the course in obstetrics as it trains the student to foresee certain complications and to determine, in advance of the confinement, how it should be conducted. An extensive course in operative obstetrics has been arranged and students are trained in matters of technique by the use of the manikin.

The Out-Patient Department, which formerly was open three days a week, is now open daily. In consequence, there has been a notable increase in the enrollment of both gynecological and obstetrical patients, and a corresponding increase in our facilities for teaching.

A prenatal nurse has been provided and she visits at regular intervals those patients who register in the pregnancy clinic.

The value of her work is shown in many ways. For example, the observations of the nurse have led to the prompt detection of toxæmic symptoms in 5 per cent of the cases of pregnancy registered in this clinic. The uniformly good results that have followed treatment in this group of cases must be attributed to the early recognition of symptoms, and thoroughly justifies the addition of the prenatal nurse to the personnel of the department.

Initial steps have been taken toward amalgamating the gynecological and obstetrical services of the hospital into a Woman's Clinic. As far as possible, the plan of organization will imitate that found satisfactory in German universities, and should materially improve our facilities for the instruction of students and for the development of men qualified to become teachers.

Respectfully submitted,

JOSIAH M. SLEMONS,

Professor of Obstetrics and Gynecology.

PEDIATRICS

The number of beds which I have in the wards is limited to fifteen. These have been kept filled with as interesting cases for teaching as it has been possible to get from our Out-Patient Department. This number of course is entirely inadequate for the number of students which we have to teach, so that I have had to give more didactic work than I would like to do if we had enough beds in our wards for teaching purposes.

We have formed a very close co-operation with the Obstetrical Service by which I take charge of the care of the infants after they are born and supervise them while they stay in the hospital, a period of from two to three weeks. This co-operative plan is, I believe, the only one in operation in any teaching school with which I am acquainted and is a very important move in the right direction, as it gives an opportunity for pediatric teaching of the newborn. (This co-operative plan was suggested by Dr. Slemons on my arrival in October, and I think due credit for such an advanced step should be given him at this time.)

The growth of the Out-Patient Department, which is the

feeder to the wards, is, I think, shown more clearly in the graphic chart, a picture of which I am enclosing, than I could do in words. The remarkable growth shown since January first is due to the fact that we have moved into our new Out-Patient Department quarters, and so have been able to properly take care of patients as they come to the Children's Clinic.

As a University department I have tried to make close connections with various academic departments, and I wish to thank the various departments which I have approached for their hearty co-operation and assistance. We have formed a most interesting and important connection with the Psychological Department by the creation of a Psychological Clinic in which we examine cases which show mental retardation or developmental anomalies, also cases which are sent to us by the Juvenile Court. In this way we feel we are not only co-operating with academic departments and giving them a clinical laboratory for abnormal psychology but also we are fulfilling a double function in co-operating with civic institutions such as the Juvenile Court and public schools. For this work Professor Stratton has assigned Dr. Olga Bridgman, a graduate student in the Department of Psychology. Her work has been most valuable to my department, and I hope it may be continued and enlarged next year.

Along this same line our department has been asked by the State Board of Lunacy and by the State Board of Charities and Corrections (mainly through the interest which Dr. Jessica B. Peixotto has taken in this work) to examine the Sonoma State Home for Feeble Minded. I outlined a plan for study and classification of the cases there on the basis of which a plan for future growth and development could be better outlined. Through the volunteer services of Dr. Kate Brousseau, who was connected with the Summer School last year, we have been able to and are going to carry on this summer a study of the cases already there, classifying them and then making recommendations as to the best plan for future development. I am enclosing a detailed outline of this investigation.

We have also had very close and beneficial co-operation with

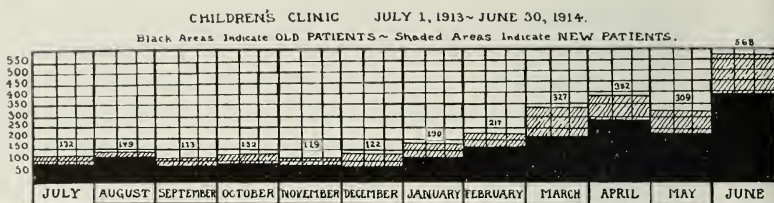
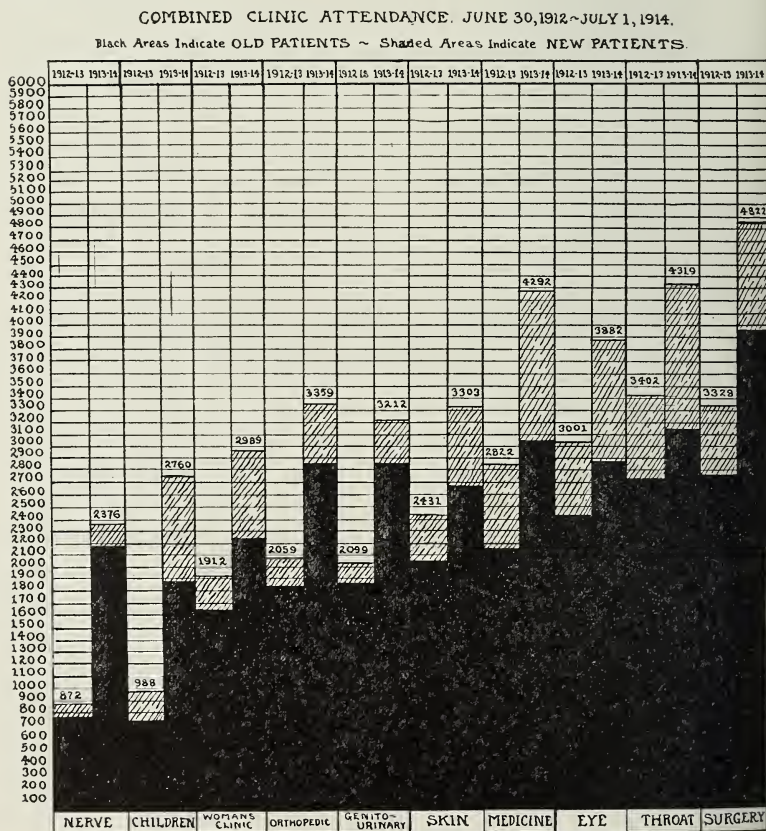


Chart 1.—Shows the progress of the Children's Clinic from July 1, 1913, to June 30, 1914. The dark columns indicate the old cases and the light shaded ones the new cases. The figures at the top indicate the total number of cases during each month.



the Department of Social Economics. Dr. Jessica B. Peixotto has allowed one of her workers (Dr. Louise Morrow) to do some medical social service work in connection with the babies born in the hospital. It has been of great assistance in keeping in touch with the mothers and bringing the infants back to the Out-Patient Department for guidance, a form of preventive medicine which is well worth developing. We hope that this inter-relationship will be made stronger by the fact that next year the worker (Dr. Louise Morrow) is going to be a regular worker in my department, and we hope that we will be able to organize a wider field for social investigation, having our clinic used as part of the field work for academic students interested in medical sociology.

Another interesting connection with the academic department has been that through the hearty co-operation of the Department of Nutrition we have had four students assigned work in making out diets for cases both in the hospital wards and in the Out-Patient Department. This has given us an opportunity to work out better dietaries for whole families, and also has given opportunity for the dietary students to get some practical work. It would be even better for both concerned if the time allotted could be increased so the students could do field work in the homes on cases for which they have drawn up dietaries.

We hope that all these various avenues of inter-relation can be extended and developed more fully next year.

Respectfully submitted,

WILLIAM PALMER LUCAS,
Professor of Pediatrics.

ANATOMY

So far as can be judged from the work of a single term, the new plan whereby all the time of the first-year students in medicine in the first term is concentrated in anatomy, has proved satisfactory. The department's collection of embryological material has been added to during the year. In order to keep pace with the modern idea of anatomy as a science dealing with the problems of growth and development, as shown by the study

of living and growing material, the necessity is created of animal experimentation in order to solve the problems of relation of structure to function and the problems of transmission of characters from generation to generation. Proper housing facilities for such animals are needed.

Respectfully submitted,

ROBERT O. MOODY,
Associate Professor of Anatomy.

PATHOLOGY

The requirement that students in the College of Agriculture take general bacteriology led to an increase in students in the undergraduate courses of 64 per cent over the previous year. For the ensuing year it is proposed, owing to the large number of agricultural students to offer four sections in general bacteriology for the classes of students who take the course. The chief activities have been centered in the medical curriculum. This instruction covers the fields of bacteriology, protozoology, infection and immunity, experimental pathology, morbid anatomy, and histopathology. An outline manual has been issued to make this set of courses more comprehensible. The department has attempted to give systematic instruction in hygiene and preventive medicine, but feels that the work can be adequately given only with the inauguration of a medical school department of hygiene and preventive medicine closely allied to the State Laboratory of Hygiene. Professor Meyer has been instrumental in developing a public course in the locally important field of tropical medicine. The extensive experimental investigation and perfecting of methods of typhoid vaccination undertaken by Drs. Gay and Claypole over a year and a half ago has been led to successful completion summarized in a series of five monographs in the Archives of Internal Medicine. We have finally arrived at a vaccine preparation which from our experimental and clinical results protects human beings far better than any hitherto devised and which has the additional advantage of producing little or no untoward symptoms on the successive inoculations. The application of the experimental results has been

rendered possible largely through the hearty co-operation of Professor Force of the Department of Hygiene. In collaboration with Professor Force, Professor Gay has devised a method by which for the first time it has become possible to detect the actual resistance of the immunized individual against typhoid fever.

The discovery of a type of specific hyperleucocytosis by Drs. Gay and Claypole has led to preliminary experiments in animals which offer promise of leading to a specific and rapid cure of typhoid fever in addition to the prevention of typhoid fever heretofore mentioned. Dr. Claypole has continued and completed the first phase of her interesting study of the streptothrix infections in human beings, hitherto confused with tuberculosis.

Respectfully submitted,

FREDERICK P. GAY,
Professor of Pathology.

PHYSIOLOGY

The number of students makes work in the Physiology Building increasingly difficult. The overcrowding has resulted in the removal of some courses to East Hall, where, however, illustrative experiments cannot be carried on owing to the absence of proper apparatus. Laboratory equipment has been added during the year. The resident members of the staff have engaged in research in addition to the teaching work; ten students have also taken up separate lines of investigation. The absence of Professor Robertson and a change in the medical curriculum made the work on the members of the department during the year unusually heavy.

Respectfully submitted,

SAMUEL S. MAXWELL,
Associate Professor of Physiology.

For the Medical School:

HERBERT C. MOFFITT,
Dean.

CALIFORNIA COLLEGE OF PHARMACY

SAN FRANCISCO, July 1, 1914.*To the President of the University,*

SIR: I have the honor of submitting to you the following report of the College of Pharmacy.

The enrollment of the students for the year has been high, reaching a total of one hundred and nineteen. Coincident with this, the type of the student is improving, as shown not only by the increasing proportion of students having requirements in advance of those in force at present, but in the quality of the work accomplished by them in the college. This is a pleasing thing to note, when we know that the over commercialism of Pharmacy is one of its sorrows. When the pharmaceutical degree is made a prerequisite to the examinations of the State Board of Pharmacy, we can then demand and secure a higher standard of entrance.

The college has received donations from Mrs. William T. Wenzell of one hundred and seventy-eight volumes of chemical books and a spectroscope. The Alumni Association is about to place a memorial tablet to Emeritus Professor William T. Wenzell in the hall of the college. The museum fixtures have been completed by means of gifts from friends of the institution. The surplus funds received from tuition fees have been used to improve the equipment, and with this to enhance the teaching facilities of the college.

We find difficulty in keeping up the repairs of the building, however. The laboratories and halls need whitening, no renovating having been done since they were built. Some of the

plumbing should be changed and electric lights are required to illuminate the blackboards in the two class rooms.

We hope that the parent University will have sufficient appropriations to meet these needs, as it is our desire that the interior of the buildings present a neat appearance for the exhibition year of 1915.

Respectfully submitted,

FRANK T. GREEN,
Dean.

UNIVERSITY PRESS

BERKELEY, July 1, 1914.

To the President of the University,

SIR: I have the honor to present the following report upon the work of the University of California Press for the year 1913-14:

During the year there were published by the University Press, in eighteen of the twenty-four series issued by the University, seventy-four papers, aggregating 3788 pages, with 116 plates and many text illustrations. This output represents an expenditure of a little over \$13,250, charged against the publications budget for the year. Other expenses of the University Press, but not including salaries, have brought the charges against the publications budget to a total of about \$14,900. As the appropriation for the year was \$12,975, the work of the University Press has required an overdraft of about \$1925, chargeable against the appropriation for the coming year.

In addition to the publications included in the above, there were published during the year, but at the expense of other budgets than that for publications, twenty-eight Lick Observatory Bulletins, 147 pages, at a cost of \$950, one Library Bulletin, 261 pages, costing \$797, and four issues of the *University of California Chronicle*, 508 pages, costing \$1048.25. Seventeen Administrative Bulletins, including the President's Report, Register, and announcements of various colleges and departments, cost \$7596.50. Other publications, such as the bulletins of the Agricultural Experiment Station, not issued even indirectly through the University Press, are not included in this report.

No contributions were issued during the year in the following series: Education, Engineering, Entomology, Philosophy, Egyptian Archaeology, Graeco-Roman Archaeology, Prize Essays. Also there were no publications of the Academy of Pacific Coast History.

Of the publications issued since July 1, 1913, twenty, amounting to 2200 pages, and costing about \$7600, were papers carried over uncompleted from the preceding year. At the end of June, 1914, the University Press has on hand forty uncompleted papers, most of which are already in the University Printing Office, and are soon to appear.

At the close of the year the proposed removal and reinstallation of the Printing Office in a building better adapted to the work than the present location had not been carried out. It is earnestly hoped that this needed change can be made during the coming year.

The transfer from the University Press to the University Library of the direction of the exchange distribution of the University's publications has also had to be postponed on account of administrative difficulties. This transfer must soon be seriously considered again, as the Press Office finds it increasingly difficult to give attention to this important work, and the exchange list has been in urgent need of a careful revision for about two years.

The distribution of the University's publications is on the whole quite satisfactory. Examination of the table "Distribution of Publications" which follows this report will show that the circulation of many of our series compares not unfavorably with that of journals in the same fields, when it is considered that the copies distributed by the University are augmented by the copies (in most cases two hundred) allowed the authors for their personal mailing lists. This distribution by the authors is often of the greatest value to the University publications as a means of scientific communication, as it brings the contributions directly to other workers in the same fields. The cost of this distribution has hitherto been entirely at the author's expense.

The subscription lists naturally remain small, on account of the rather generous distribution in other ways, which reaches the more important research libraries and private workers. It is assumed, however, that the purpose of the University's publications is to make known as widely as possible the work of our scholars, and from this point of view the copies of publications distributed gratuitously are as valuable to the University as if a subscription had been paid for them.

The receipts from sales, shown in the subjoined statement, show a considerable increase over those of the year before. The increase is largely due to the sales of Professor W. C. Mitchell's important work, *Business Cycles*, published as volume 3 of our Memoir series. The total cash receipts during the year amount to about one-eighth of the sum spent by the University on various publications in the same period.

Institutions on the exchange list now number 1223. As stated, above, the list is in urgent need of revision, but without an assistant competent to undertake the necessary overhauling of the Library's files and records this work cannot at present be undertaken by the University Press.

Among the items of business which have come before the Editorial Committee the following have been of importance:

1. An arrangement has been made for the publication through the University Press of syllabuses, outlines of lectures, and the like, needed for University courses, for sale to students.

2. Efforts have been made to secure the transfer to the University Library of the work connected with the exchange of publications.

3. The Committee has given its endorsement to a proposal to establish a quarterly literary and scientific magazine, to be issued under the direction of an editorial board chosen from the faculty.

4. Rules have been adopted controlling the use of the imprint "University of California Press," with the intention of bringing into established series all University publications, including departmental bulletins.

5. Some twenty-five works proposed as Semicentennial Publications to be issued in 1918 have been given provisional endorsement, subject among other conditions to the provision of funds needed to secure their publication. The proposed works will amount to about 5000 octavo and 1000 quarto pages, and to publish them will require from \$20,000 to \$25,000.

The Manager of the University Press desires to express his cordial appreciation of the help and co-operation of the chairman and members of the Editorial Committee in all phases of the work connected with the Press Office.

Respectfully submitted,

ALBERT H. ALLEN,
Manager of the University Press.

COST OF PUBLICATIONS, 1913-14

	No. of papers	Pages	Plates	Cost of Publication		
				Printing	Plates	Total
Agricultural Sciences	4	158	12	\$497.42	\$92.22	\$589.64
American Archaeology and Ethnology	3	62	4	222.63	21.56	244.19
Botany	4	64	8	224.00	35.48	259.48
Classical Philology	1	10	....	37.50	.....	37.50
Economics	3	438	....	1,212.68	.....	1,212.68
Education	index	8	....	20.00	.....	20.00
Geography	4	326	18	679.28	128.20	807.48
Geology	16	342	28	1,061.75	289.46	1,351.21
History	1	98	....	224.75	.....	224.75
Mathematics	1	10	....	63.50	.....	63.50
Modern Philology	2	428	....	994.82	.....	994.82
Pathology	5	44	....	184.88	.....	184.88
Physiology	1	14	....	48.50	2.55	51.05
Psychology	2	124	....	354.10	18.10	372.20
Semitic Philology	1	130	....	318.08	.....	318.08
Zoology	23	866	46	2,455.90	708.50	3,164.40
Memoirs	1	628	....	3,049.85	187.65	3,237.50
Seismographic Bulletin	2	38	....	153.00	.....	153.00
	74	3,788	116	\$11,801.76	\$1,484.60	\$13,286.36
Lick Observatory Bulletins	28	147	....	.....	.....	950.00
Library Bulletin	1	261	....	.....	.....	797.00
University of California Chronicle	4	508	....	.....	.....	1,048.25

RECEIPTS FROM SALES OF PUBLICATIONS, 1913-14

Agricultural Sciences	\$4.47
American Archaeology and Ethnology	91.04
Botany	69.18
Classical Philology	7.54
Economics	103.65
Education	102.60
Engineering	4.24
Entomology	1.50
Geography	17.51
Geology	106.11

Carried forward \$507.84

<i>Brought forward</i>	\$507.84	
History	15.35	
Mathematics	1.70	
Memoirs	803.36	
Modern Philology	47.49	
Pathology	12.44	
Philosophy	3.46	
Physiology	23.03	
Prize Essays	3.20	
Psychology	5.26	
Semitic Philology	44.90	
Zoology	74.61	
		\$1,537.64
Lick Observatory Bulletins	\$19.00	
Lick Observatory Publications	9.91	
		28.91
Library Bulletin	\$12.46	
Publications of the Academy of Pacific Coast History	58.52	
University of California Chronicle	59.50	
		130.48
Alumni Directory	\$20.90	
*Announcement of Courses	443.58	
*Officers and Students' Directory	296.84	
Register	4.10	
		765.42
University Calendar	\$150.00	
English in Secondary Schools	21.75	
Sundries	8.25	
Syllabuses	542.41	
Weinstock Lectures	53.06	
Book of the Life of the Ancient Mexicans	16.00	
Zoe	21.60	
te Geological Survey	6.50	
		819.57
		\$3,282.02

* Does not include sales through the Recorder's Office.

DISTRIBUTION OF PUBLICATIONS

	Exchange	Depart- ment	Reviews	Subscrip- tions	Others	Total
Agricultural Sciences	163	82	24	9	60	338
American Archaeology and Ethnology	279	100	26	17	50	472
Botany	361	22	30	13	59	485
Classical Philology	111	75	30	11	50	277
Economics	123	58	44	4	43	272
Education	135	6	24	6	37	208
*Egyptian Archaeology .....	.....	.....	.....	.....	.....	69
*Engineering .....	.....	.....	.....	.....	.....	108
*Entomology .....	.....	.....	.....	.....	.....	188
Geography	116	37	14	1	47	215
Geology	366	29	22	26	50	493
*Graeco-Roman Archaeology .....	.....	.....	.....	.....	.....	55
History	104	97	24	.....	47	272
Library Bulletin	141	.....	16	.....	26	260
Lick Observatory Bulletin .....	.....	.....	.....	.....	.....	439
Mathematics	94	.....	5	4	46	149
Memoirs	72	.....	45	4	40	161
Modern Philology	103	32	25	3	56	219
Pathology	190	100	13	7	62	372
*Philosophy .....	.....	.....	.....	.....	.....	270
Physiology	281	100	16	19	47	363
Psychology	77	70	41	3	61	252
Semitic Philology	70	31	13	4	12	130
Zoology	416	82	21	9	73	601
University Chronicle	305	.....	.....	63	89	457
*Publications of the Academy of Pacific Coast History .....	.....	.....	.....	.....	.....	363

* No papers published in these series during 1913-14. The total distribution given is that for the last publication in each case.

The distribution of papers in several series varies somewhat according to the character of the paper. The figures given are for the latest paper issued in each series. The table aims to give an approximate idea of the circulation of the University's publications. No account is taken of the possible circulation of two hundred copies allowed in most cases to the author of each paper published.

SCRIPPS INSTITUTION FOR BIOLOGICAL RESEARCH

LA JOLLA, July 1, 1914.

To the President of the University,

SIR: My report for the year July 1, 1913, to June 30, 1914, is respectfully presented herewith.

The preparation for publication of the field records collected by the explorations at sea during the whole existence of the Institution has been in progress for many months. These records have not been turned over to the printer for publication.

The positions occupied by the boats have been located or re-located on the coast and geodetic survey charts; the temperatures and densities of the water have been recalculated; and all the data, biologic and hydrographic, have been made as complete and accurate as possible. Five hundred and twenty-seven "sections," i.e., squares of sea surface five miles on a side, were occupied during the explorations, these extending from Cedros Island 300 miles down the coast of Lower California, to Puget Sound. By far the greater number of positions were, naturally, on the coast of Southern California.

Approximately 3000 temperatures and 2000 densities are entered, each density being reduced to three temperatures: namely, that of the observation, 0° C., and $17^{\circ} 5'$ C., this to correspond with the usages in different countries where oceanographic research is prosecuted. About 3450 biological net hauls are recorded, 3200 of these pertaining to pelagic organisms, and 250 to bottom dwelling organisms. Four thousand three hun-

dred and thirty-six water samples are included, 376 soundings, and 50 gas analyses.

Much labor, practically all of which has fallen on Messrs. Michael and McEwen, has been devoted to the preparation of these records, and their publication will be somewhat expensive; but they will be of great use not only as a basis for future biological and hydrographical investigations of various sorts, but as giving an opportunity to other investigators for testing results reached by us.

Search after the laws governing the movements of pelagic animals has been extended by Dr. Esterly during the year to two groups of animals hitherto studied very little from this standpoint, the Ctenophora and the Schyzopoda. The large significance of discoveries attainable in this domain by the methods used is emphasized by Dr. Esterly's two short papers; but the complexity and diversity of the phenomena are equally emphasized, and so the necessity for more data collected with more definite reference to particular questions is made more manifest than ever.

An elaborate plan was laid out in the summer of 1913 by Professor Kofoed and Mr. Barrows for collecting material upon which to study the vertical distribution of the microscopic plants, the Peridinidae. The entire work of the *Alexander Agassiz* was devoted for three weeks to carrying out this plan only to find after the collections had been shipped to Berkeley and a preliminary examination of the hydrographic data had been made, that owing to imperfection in the apparatus somewhere the water bottle used for taking the biological samples had not closed regularly at the level at which it was intended it should close, and consequently that the data had been badly vitiated or made wholly worthless for the particular problem aimed at.

This costly experience brings home with great force the necessity of forethought in preparing for such work and of vigilance in executing it. The fact that the most vital part of the apparatus operates beneath the surface of the sea where it can not be watched, seems to indicate that certainty of success in a long

series of operations may be impossible without frequent laboratory examinations of the samples taken. As these collections are in Mr. Barrows' hands, for study; and as he resigned in March of this year to accept the secretaryship of the Pacific Division of the American Association for the Advancement of Science, not much has yet been learned of their character. That they will be useful in taxonomic studies and to some extent also for distributional studies is certain, so this field work will not be a total loss.

Although the preparation of the field records for publication was Mr. Michael's chief occupation during the year, he has made good progress with his study of the distribution of *Salpa democratica* in the San Diego area, and also with his report on the chaetognatha of the Pacific Ocean belonging to the United States National Museum.

In my own research work I have, with the help of Messrs. Wallace and Költze, added considerably during the year to the observations and statistical data on the growth of organisms and the proportionality of their repetitive parts, which subject has occupied much of my attention for a number of years. Particularly suggestive results were obtained on the problem of the relation between cell size and leaf size in several species of plants. I am looking forward eagerly to the opportunity for pushing these investigations to decisive results.

The Local Board decided last summer to recommend Dr. F. B. Sumner to the Regents of the University for the new research position to which it had been previously resolved that part of the funds should be devoted, which the State had granted the Institution. The matter was deliberated on with special care because it involved the question of entering an entirely new field of investigation. Would it be justifiable to do this even though the funds available for running expenses are somewhat enlarged, in view of the great desirability of increasing the marine investigations? Whether or not the decision reached was wisest can be known with certainty only in the future.

Dr. Sumner's central problem is the much discussed one of the heritability of acquired characters. Many biologists accept

the Weismannian hypothesis of a "germ plasm" wholly distinct from a "somato-plasm," and so immune to environmental influences acting upon the latter; and on the basis of this conception coupled with the great amount of positive evidence now in court to the effect that specific, localized bodily modifications produced directly by contact with environment are not heritable, hold the question to be closed with the possibility excluded that external influences of any sort play a direct part in organic evolution.

Dr. Sumner is one of the minority, as it seems, of biologists who do not admit the evidence against transmission to be as conclusive as Weismann and his followers hold it to be; and his doubts are justified by strong evidence obtained by experiments of his own as well as by those of other investigators.

The importance of the problem, not only biological but humanitarian; the desirability of enabling Dr. Sumner to carry farther the experiments he had previously begun; and the strong convictions held by me, not only of the fundamental fallacy of the germ plasm conception but also of its baneful influence on philosophical biology generally, all worked together in favor of entering the new domain in spite of the inadequate support which can be given both it and the marine work under the present financial limitations of the Institution. The hope is that the importance of this problem as well as those of the sea life upon which we are already engaged, and the nature of the results already reached in the latter field and those before long to be reached in the former, will constitute a basis for an effective appeal for more ample funds. But in reality while, seen from one direction, Dr. Sumner's work is wholly new to the Institution and different from what we have hitherto been doing, looked at from another direction it is only an extension to land animals of the same kind of study we have been prosecuting on certain groups of marine animals. One formulation covers large aspects of both the main problem of marine biology upon which we are engaged, and the problem of terrestrial biology upon which Dr. Sumner is now entering. What relation of organisms to their

environment is revealed by comparing and correlating long series of statistical data pertaining to both the organisms themselves and their environment? In other words, what comes to light when the nature and degree of *adaptation* of organisms to their environment are investigated quantitatively?

The central motive to this sort of investigation is the perception that many questions concerning adaptation, and so concerning the nature of organisms, cannot be answered in any other than a speculative way until quantitative conceptions are applied to them and quantitative methods are employed in studying them.

In order to meet the objection that positive results on the inheritance of acquired characters reached by studies on lower organisms might not hold for higher animals and man, some groups of mammals, it was agreed, must be used in the investigations. For many reasons mice would be the most favorable. Naturally Dr. Sumner turned to Dr. Grinnell, Curator of the Museum of Vertebrate Zoology at the University of California, for help in deciding what species to begin with. It is a great satisfaction to be able to state that without the extensive knowledge of the mammalian fauna of California possessed by the members of the Museum, and the large and splendidly prepared series of specimens contained in the collection, it would have been impossible for Dr. Sumner to take up his problem as he has taken it up. He began work November 1st, 1913, and has already accumulated a mass of quantitative data and information concerning several sub-species of a genus of field mice, by work on museum collections that would have required many months at best had he been obliged to collect and prepare his own specimens. Also through Dr. Grinnell's assistance he has been able to trap and keep alive and under observation a large number of one sub-species from Berkeley and another from Victorville, California, a typical desert locality; so a half year's work has advanced the investigation to a point that could hardly have been reached in double or treble that time but for the help of the Museum.

The instruments provided for measuring the environment of the animals are for the most part those in common use by meteorologists. They are:

Thermograph (Richard, Paris), model "B. C. M." weekly recording.

Hydrograph (Richard), D. M. 2.

Barograph (Richard), B. N. 3, metric scale.

Recording Actinomometer (Richard).

Maximum registering solar radiation thermometer, Observatory barometer.

Maximum and minimum thermometer.

Whirling psychrometer.

Robinson Anemometer registering to 5500 miles.

Rain gauge.

For the present only a few of these are duplicated, but, as the investigation advances the plan is to instal a complete set at each of two or three or more stations in the typical habitats of the different sub-species being investigated.

Dr. McEwen has published a study during the year on the relation between the phenomenon of up-welling water on the Pacific Coast of America, the meteorology of the Pacific, and the climate of Western North America. He has also made progress on the hitherto almost untouched problem of the relation between the absorption of the sun's heat by the ocean and up-welling water. Through the interest taken in the matter by the Commissioner of the Federal Bureau of Fisheries, Dr. H. M. Smith and Mr. W. L. Schmitt, naturalist of the Bureau's steamer *Albatross*, the vessel while carrying on an investigation of the halibut fishery on the coast of Washington and Oregon during the present spring and summer, is also collecting hydrographic data in behalf of the problems upon which Dr. McEwen is occupied.

The preparation of field records for publication being now off Dr. McEwen's hands he is in position to make immediate use of this new *Albatross* data, and to push on the several problems in hand without interruption.

The year has brought splendid progress in the development of the library. One thousand nine hundred and five new books

have been added, 1114 by purchase and 791 by gift. Many of the purchases are in sets of journals most of which are complete to date and are to be continued through subscription. Much binding has been done, and the work of accessioning, cataloging and arranging of the entire library has been nearly finished.

About 2200 pamphlets and reprints were added in one lot by gift from the director, and good progress has been made in sorting, collating and binding the whole collection of pamphlets. The space devoted to the library and reading room has been increased and storage room for exchange reprints and duplicates has been provided.

With the freeing of the entire laboratory building for scientific uses by the removal of the director's household to the new residence erected for that purpose, new and well furnished quarters have been provided for the zoological collections, and these can now be made more complete and attractive.

A section of concrete sea wall 250 feet long and about eight feet high above the surface of the ground has been constructed in front of the laboratory buildings to stay the inroads of the sea upon the cliff. Two lines of concrete drain pipe each 600 feet in length have been laid across the area upon which the buildings stand to carry away the surface water coming down from the adjacent mesa. Six thousand six hundred dollars were expended on these improvements.

A residence for the director was completed in December. Four thousand dollars were appropriated for the purpose and the work was done practically within the appropriation. The efficiency of Mr. Crandall as business manager is shown by the fact that these improvements were carried out in accordance with the plans and within the limits of the funds set apart for them.

The salt water circulatory system was completed and put into operation in the fall. The pump, having a capacity of 2100 gallons per hour, is driven by electricity. In the absence of a pier upon which the intake pipe might be carried beyond the immediate wash of the shore, it was deemed best to consider the installation as more or less provisional and so not to expend a

large sum upon it. Plans and estimates are now being prepared for a pier by the Engineer of the University connected with the Comptroller's office, Mr. H. B. Foster, and as funds for the purpose are or soon will be available, it is anticipated that the near future will see the aquarian plans realized.

Owing to the fact that the hull of the *Alexander Agassiz* had not been thoroughly examined for several years it was decided last summer to put the boat on the ways, make such repairs as might be necessary to render her entirely seaworthy and, besides, to take the opportunity to remove her center board, never used, and center board box, and give her more of a keel than she had. These repairs and improvements cost \$900; but the operating qualities of the boat were greatly improved and she was put in good condition in every respect.

Mr. C. J. Marvin, curator of the museum, Mr. W. S. Wallace, research assistant, and Mr. Karl Költze, collector and aquarium assistant, resigned without completing the year for which they were appointed.

Respectfully submitted,

WM. E. RITTER,
Scientific Director.

SECRETARY OF THE REGENTS

UNIVERSITY OF CALIFORNIA,

Berkeley, July 1, 1914.

*To the Honorable Board of Regents
of the University of California:*

GENTLEMEN: I have the honor of presenting the following
Secretary's Report for the year ending June 30, 1914.

Respectfully submitted,

VICTOR H. HENDERSON,
Secretary of the Regents.

REGENTS OF THE UNIVERSITY, 1913-14

REGENTS EX OFFICIO

HIS EXCELLENCY HIRAM WARREN JOHNSON - - - Sacramento
Governor and ex officio President of the Regents

HIS HONOR ALBERT J. WALLACE - 621 Union Oil Building, Los Angeles
Lieutenant-Governor

CLEMENT CALHOUN YOUNG, B.L.
Shattuck Avenue and Addison Street, Berkeley
Speaker of the Assembly

HON. EDWARD HYATT - - - - - Sacramento
State Superintendent of Public Instruction

HON. A. LOWNDES SCOTT Seventh and Townsend Streets, San Francisco
President of the State Agricultural Society

LIVINGSTON JENKS, A.B., LL.B. - Mills Building, San Francisco
President of the Mechanics' Institute

BENJ. IDE WHEELER, Ph.D., LL.D. - California Hall, Berkeley
President of the University

APPOINTED REGENTS

The term of the appointed Regents is sixteen years, and terms expire March 1 of the year indicated. The names are arranged in the order of original accession to the Board.

ISAIAS WILLIAM HELLMAN, ESQ.	-	-	-	-	-	-	-	1918
Wells, Fargo-Nevada National Bank, San Francisco								
MRS. PHOEBE APPERSON HEARST	-	-	-	-	-	-	-	1930
Pleasanton. Business address: 410 Hearst Building, San Francisco								
ARTHUR WILLIAM FOSTER, ESQ.	-	-	-	-	-	-	-	1916
1210 James Flood Building, San Francisco								
GARRETT WILLIAM MCENERNEY, ESQ.	-	-	-	-	-	-	-	1920
1277 James Flood Building, San Francisco								
GUY CHAFFEE EARL, A.B.	-	-	-	-	-	-	-	1918
14 Sansome Street, San Francisco								
RUDOLPH JULIUS TAUSSIG, ESQ.	-	-	-	-	-	-	-	1916
Main and Mission Streets, San Francisco								
JAMES WILFRED MCKINLEY, B.S.	-	-	-	-	-	-	-	1922
Rooms 432-437 Pacific Electric Building, Los Angeles								
JOHN ALEXANDER BRITTON, ESQ.	-	-	-	-	-	-	-	1930
445 Sutter Street, San Francisco								
FREDERICK WILLIAM DOHRMANN, ESQ.	-	-	-	-	-	-	-	1920
201 Geary Street, San Francisco								
CHARLES STETSON WHEELER, B.L.	-	-	-	-	-	-	-	1928
Nevada Bank Building, San Francisco								
WILLIAM HENRY CROCKER, Ph.B.	-	-	-	-	-	-	-	1924
Crocker National Bank, San Francisco								
PHILIP ERNEST BOWLES, Ph.B.	-	-	-	-	-	-	-	1922
American National Bank, San Francisco								
JAMES KENNEDY MOFFITT, B.S.	-	-	-	-	-	-	-	1924
First National Bank, San Francisco								
REV. CHARLES ADOLPH RAMM, A.B.	-	-	-	-	-	-	-	1928
1100 Franklin Street, San Francisco								
EDWARD AUGUSTUS DICKSON, B.L.	-	-	-	-	-	-	-	1926
1631 Cimarron Street, Los Angeles								
JAMES MILLS, ESQ.	-	-	-	-	-	-	-	1926
Willows, California								

OFFICERS OF THE REGENTS

HIS EXCELLENCY HIRAM WARREN JOHNSON	- - -	Sacramento
	<i>President</i>	
RALPH PALMER MERRITT, B.S.	- -	220 California Hall, Berkeley
	<i>Comptroller</i>	
VICTOR HENDRICKS HENDERSON, B.L.	-	209 California Hall, Berkeley
	<i>Secretary and Land Agent</i>	
ISAIAS WILLIAM HELLMAN, JR., Ph.B.	Union Trust Company,	San Francisco
	<i>Treasurer</i>	
WARREN OLNEY, JR., A.B., LL.B.	Merchants' Exchange Building,	San Francisco
	<i>Counsel</i>	

STANDING COMMITTEES OF THE REGENTS FOR 1913-14*

Finance: Regents EARL, FOSTER, BRITTON, MOFFITT, TAUSSIG, and as Member Emeritus, Regent HELLMAN.

Grounds and Buildings: Regents BRITTON, Mrs. HEARST, DOHRMANN, BOWLES, and C. S. WHEELER.

Agriculture: Regents SCOTT, FOSTER, DICKSON, JENKS, and WALLACE.

Medical Instruction: Regents CROCKER, MOFFITT, DOHRMANN, Mrs. HEARST, and DICKSON.

Lick Observatory: Regents RAMM, MCENERNEY, JENKS, YOUNG, and CROCKER.

Wilmerding School: Regents TAUSSIG, EARL, and MOFFITT.

Scripps Institution for Biological Research: Regents MCKINLEY, WALLACE, and HYATT.

Executive Committee: This committee consists of the chairmen of all other committees

* The President of the Board of Regents and the President of the University are ex officio members of all committees of the Board. In each committee the name of the chairman is first and the name of the vice-chairman second.

SPECIAL COMMITTEES OF THE REGENTS DURING 1913-14*

Committee on Committees: Regents EARL, BRITTON, MOFFITT, SCOTT, and TAUSSIG.

University Hospital Building Committee: Regents CROCKER, TAUSSIG, BRITTON, MOFFITT, and EARL.

Committee on Site for Citrus Experiment Station: Regents TAUSSIG, SCOTT, and MILLS.

Committee on Stanford Relations: Regents EARL, BRITTON, CROCKER, and MOFFITT.

Committee on Courses of Instruction: Regents EARL, C. S. WHEELER, and MOFFITT.

STANDING COMMITTEES OF THE REGENTS FOR 1914-15

On June 9, 1914, the Board voted to recommend to the President of the Board that the Standing Committees for 1914-15 should be as follows:

Finance: Regents EARL, FOSTER, BRITTON, MOFFITT, TAUSSIG, and as Member Emeritus, Regent HELLMAN.

Grounds and Buildings: Regents BRITTON, Mrs. HEARST, DOHRMANN, BOWLES, and C. S. WHEELER.

Agriculture: Regents SCOTT, FOSTER, DICKSON, JENKS, and MILLS.

Medical Instruction: Regents CROCKER, MOFFITT, DOHRMANN, Mrs. HEARST, and DICKSON.

Lick Observatory: Regents RAMM, JENKS, CROCKER, and YOUNG.

Wilmerding School: Regents TAUSSIG, EARL, and MOFFITT.

Scripps Institution for Biological Research: Regents MCKINLEY, HYATT, and WALLACE.

*The President of the Board of Regents and the President of the University are ex officio members of all committees of the Board. In each committee the name of the chairman is first and the name of the vice-chairman second.

ORDERS OF THE BOARD

Death of Dr. George F. Reinhardt:

On June 9, 1914, President Wheeler reported to the Board:

"I report with deep regret the death in Berkeley, June 7, 1914, of George F. Reinhardt, M.D., Professor of Hygiene and University Physician. I attended at Berkeley today the obsequies of Dr. Reinhardt,—an invaluable man. He has done for the students what almost no one else would in caring for them in season and out of season. He was a very unselfish man. He did not know how to work on the basis of working for himself, and individual achievement he did not seem to notice or understand very fully. He worked only to advantage when he worked in an institution. His idea was not that a man should dole out the means of health and healing to those who could pay for it individually, but whatever the community had to provide of health and healing he believed should be open to all the community, and at Berkeley he founded such a type of institution. He gave himself fully to his work. He built up the Infirmary. It is his work, and it will always be his monument. I don't know what we shall ever do without him—he did so many things. he was so useful to the University in so many ways."

On motion of Regent Britton it was voted that when the Board adjourn, it do so in respect to the memory of Dr. Reinhardt.

Death of Dr. William Theodore Wenzell:

On September 9, 1913, Dean Barrows reported the death on July 31, 1913, of William Theodore Wenzell, Ph.D., M.D., Pharm.M., Emeritus Professor of Chemistry in the California College of Pharmacy.

Death of Dr. John Swett:

On September 9, 1913, Dean Barrows reported to the Board the death on August 23, 1913, at Martinez, of Dr. John Swett, Honorary Lecturer in Education—chief moulder of the common school system of California.

Death of President Holden:

The University flag was at half-mast on March 17 for the death of Dr. Edward S. Holden, from 1885 to 1888 President of the University of California, and from 1888 to 1898 Director of the Lick Observatory. Since 1902 he had served as Librarian of the United States Military Academy at West Point.

Honorary Degrees:

On April 14, 1914, it was voted that the degree of LL.D. be conferred upon William Mulholland, builder of the Los Angeles Owens River Aqueduct. On May 12, 1914, it was voted that the honorary degree of LL.D. be conferred on Commencement Day, May 13, upon James Monroe Taylor, President of Vassar College since 1886; Eugene Woldemar Hilgard, Professor of Agriculture and head of the College of Agriculture of the University of California from 1875 to 1905; and George Holmes Howison, Mills Professor of Intellectual and Moral Philosophy and Civil Polity from 1884 to 1909. These degrees were duly conferred on Commencement Day.

Degrees Conferred in 1913-14:

On May 12, 1914, President Wheeler reported that the total number of degrees conferred in 1913-14 is 893, as against 725 last year, 679 in 1911-12, and 540 in 1910-11; that there are in 1913-14 a total of 620 Bachelor's degrees, as against 534 last year; 129 Master's degrees, as against 90 last year; 16 Juris Doctor degrees, as against 12 last year; 14 degrees of Doctors of Philosophy, as against 10 last year, and 110 professional degrees of the San Francisco colleges, as against 79 last year.

President Wheeler on Leave:

On August 12, 1913, it was reported that the following letter had been received from President Wheeler:

"I have decided to take the six months' vacation, generously and to me unexpectedly, offered by the Regents, as of date July 1 to December 31, 1913. I beg you will convey to the Board in reporting my decision under the option of date kindly given me

my continued and repeated expression of appreciation of their consideration and very great personal kindness toward me. The direction of the University's affairs I leave with great confidence in the hands of Dean David P. Barrows."

Return of President Wheeler:

On January 13, 1914, the Regents met at luncheon in the Red Room of the Bohemian Club in honor of President Wheeler's return from six months' absence in Europe. After the remarks which President Wheeler made, the chairman stated that in behalf of the Board he wished to thank President Wheeler for his illuminating discussion of great movements of human society and of international affairs.

Proposed Changes in Degrees:

On May 12, 1914, President Wheeler reported that the Academic Senate had recommended to the Regents the consolidation of the three colleges of general culture into a single college, to be designated as the Course in Arts and Sciences (College of Letters), this to comprise five courses leading to the five separate degrees of A.B., B.L., Ph.B., B.S., and a degree—as to designation still to be determined—for the course in Fine Arts, and also that the degree of Graduate in Architecture be established, to be conferred on such students as might complete a suitable professional curriculum in the School of Architecture, under conditions approved by the Academic Senate. These recommendations were referred to a new special committee of the Regents, "the Committee on Courses of Instruction," consisting of Regents Earl, Moffitt, and Charles S. Wheeler.

General A.B. Proposed:

On June 9, 1914, the Committee on Courses of Instruction recommended that the Regents should express it as their opinion, in the matter mentioned above, that the wisest policy for the University to pursue would be to grant the degree of A.B. to all graduates of the academic colleges other than those in the applied sciences. This report, as concurred in by the Board, June 9, was as follows:

“To the Honorable Board of Regents:

“We have the honor to report:

“At a meeting of the Regents on May 12, 1914, the President of the University transmitted to the Board the following report and recommendations of the Academic Senate:

“I submit to the Board of Regents herewith three recommendations of the Academic Senate:

“ ‘May 7, 1914.

“ ‘To the Regents of the University of California:

“ ‘At a meeting of the Academic Senate held May 6, 1914, it was voted,

“ ‘ ‘That the Board of Regents be requested to give effect to recommendation II, 1, 2, and 3, of a report recommending certain changes in matriculation and degree requirements, said report having been presented to the Senate by the Academic Council and approved by the Senate.’

“ ‘The specific recommendations ordered to be transmitted to the Board of Regents are as follows:

“ ‘PART II. UPPER DIVISION.

“ ‘1. Consolidation of the three colleges of general culture into a single college with the following designation:

“ ‘ ‘COURSE IN ARTS AND SCIENCES

(College of Letters)

“ ‘2. (a) That there be a course in Arts, implying 30 units in Greek and Latin, at least 12 of which shall be Greek;

(b) There shall be a course in Letters, implying 30 units of Latin and of French or German, of which 12 shall be Latin and 18 in one of the other two languages;

(c) That there be a course in Social Sciences, implying 30 units in major courses in the following group of departments: philosophy, history, political science, economics, jurisprudence, anthropology;

(d) That there be a course in Pure Science, implying 30 units in major courses in mathematics-natural sciences;

(e) That there be a course in Fine Arts, implying 30 units in major courses in art.

“ ‘3. That each of the five courses named above have its distinctive degree, as follows: for the course in Arts the degree of A.B.; for the course in Letters the degree B.L.; for the course in Social Sciences the degree Ph.B.; for the course in Pure Science the degree B.S.; for the course in Fine Arts the degree — (to be determined).

“ ‘Respectfully submitted,

“ ‘JAMES SUTTON,

“ ‘Secretary of the Academic Senate.’

"We recommend that these recommendations of the Academic Senate be referred back to the Academic Senate with the following expression of opinion on the part of the Board of Regents:

"As to recommendation No. 1, for the consolidation of the three colleges of general culture into a single college: That the Regents concur in deeming desirable such consolidation of the Colleges of Letters, Social Sciences, and Natural Sciences into one college, but that in their opinion it would be well for such consolidation to be known as the College of Letters, published statements in regard to such College of Letters to state that the College of Letters embraces courses in Arts, Letters, Social Sciences, Pure Science and Fine Arts.

"As to recommendation 3, which proposed that a distinctive degree be provided for each of the five courses mentioned above: That the Academic Senate be informed that it is the opinion of the Board of Regents that multiplicity of degrees granted for the completion of such courses as mentioned above is unusual, not in accord with the best practice of American universities, and not for the best interests of the University, and, further, that in the opinion of the Board of Regents the wisest policy for the University to pursue would be to grant the degree of A.B. to all graduates of the proposed consolidated College of Letters, no matter which of the five proposed courses within the College of Letters should have been chosen and pursued by the candidate for the degree; and, further, that in the opinion of the Board of Regents the degree of Bachelor of Science should continue to be given to candidates who have completed courses which in their general nature are in the field of applied sciences.

"We recommend, further, that definite and final action by the Regents in the way of amendments to the Standing Orders of the Board which would carry into effect the sentiment of the Board of Regents as expressed above should not be taken at this time, but that opportunity should be given to the Academic Senate to consider further the important matters of academic policy involved, and to present further report to the Regents thereupon."

Degrees in Pharmacy:

On April 14, 1914, the Regents approved the recommendation of the faculty of the California College of Pharmacy and the University Council that beginning with the academic year 1914-15 degrees be conferred by the California College of Pharmacy as follows:

1. For the completion of the two-year course in Pharmacy, based upon the foundation of satisfactory completion of two years of high school work or its equivalent, which now leads to the degree of Pharmaceutical Chemist (Ph.C.), the degree of Graduate in Pharmacy (Ph.G.).

2. For the completion of a three-year professional course in Pharmacy; that is, a course based upon satisfactory completion of four years' standard high school preparation, or its equivalent, and including three years of work in Pharmacy of collegiate grade, the degree of Pharmaceutical Chemist (Ph.C.).

3. For the completion of the four-year professional course, based upon satisfactory completion of four years' standard high school preparation, or its equivalent, the degree of Bachelor of Pharmacy (Phar.B.).

“Interne” Year; Name of Medical School Changed:

On May 12 the President reported that the Academic Senate had recommended that a compulsory fifth or so-called “interne” year be made requisite for the granting of the degree in Medicine for all students entering in 1914 and thereafter, and that one year's work in teaching or research in any of the departments of the Medical College be considered the equivalent of the fifth year. A further recommendation of the Academic Senate was that the Medical Department be designated hereafter “University of California Medical School.” These recommendations regarding the Medical Department were referred to the Committee on Medical Instruction. This committee, on consideration of the recommendations, agreed to recommend to the Regents at their August meeting confirmation thereof.

University Hospital:

On November 11, 1913, Regent Crocker reported to the Board that approximately \$600,000, the amount necessary for the erection of an adequate teaching hospital for the Medical Department of the University, had now been subscribed. Regent Crocker, Regent Taussig, Regent Moffitt, Regent Earl, as Chairman of the Finance Committee, and Regent Britton, as Chairman of the Committee on Grounds and Buildings, were appointed a committee with full power to act in the matter of the erection of the new hospital. It was voted, further, that the Board express its

high appreciation of the services of Mr. Crocker in raising the large sum now subscribed for the University Hospital.

Hooper Lands Valued at a Million:

On September 9, 1913, it was voted that one million dollars be the valuation, for bookkeeping purposes, of the lands deeded to the University by Mrs. George Williams Hooper as endowment for the George Williams Hooper School of Medical Research, this land, however, not to be included in the Endowment Pool, but to be held as a separate investment of the Hooper Foundation.

Mortgage on Hooper Lands Paid Off:

On January 13, 1914, it was approved that \$175,375 due to Henry Swart and the Henry Swart Lumber Company on January 1, 1914, for notes secured by the redwood property which constitutes the endowment for the George Williams Hooper School of Medical Research, and for interest on these notes, be paid, this money to be reimbursed, with interest to the Regents, from future receipts from sales of this land or of the timber upon it.

Stanford Trustees Decline Amalgamation in Medicine:

On May 12, 1914, report was made to the Regents concerning the negotiations which had been in progress relative to a possible amalgamation of the Medical Department of Leland Stanford Junior University and the Medical Department of the University of California. It was voted that everything possible be done to bring about amalgamation.

The letter which was written in behalf of the Regents to the Stanford Trustees in regard to the matter, and the response by which the Stanford Trustees brought to an end the hope of the Regents of bringing about such an amalgamation in medicine, are both contained in the following resolutions, adopted by the Stanford Trustees on May 29, 1914, and received by the University of California on June 10, 1914, in a letter of June 9, 1914, from Mr. W. E. Caldwell, Secretary of the Stanford Trustees:

“Whereas, the following letter from the Regents of the University of California has been received by the Board of Trustees of Leland Stanford Junior University:

“ ‘University of California
 “ ‘Office of the Secretary of the Regents
 “ ‘Berkeley, California,
 “ ‘May 19, 1914.

“ ‘Gentlemen:

“ ‘At a meeting of the Regents of the University of California, held on May 12, 1914, in San Francisco, letters exchanged between Dean Herbert C. Moffitt of the Medical Department of the University of California and Dean R. L. Wilbur of the Medical Department of Leland Stanford Junior University, together with a letter of April 20, 1914, from Dean Wilbur to Mr. Timothy Hopkins, President of your Board, and a letter of April 24, 1914, from Mr. Hopkins to Dean Wilbur, were reported to the Board of Regents.

“ ‘The Board of Regents thereupon, after careful consideration of all that has heretofore transpired, voted to express officially to you their deep desire that an amalgamation be consummated of the work in medicine of Leland Stanford Junior University and of the University of California. They are convinced that the welfare of medical education will be so much advanced by such a merger that the opportunity of a united effort in this field by the two universities ought not to be lost. The Regents, therefore, in earnest hope of the realization of a plan of so much moment to the community, would request your Board to suggest a basis on which, in your opinion, such a merger in medical education may be brought about.

“ ‘With great respect,

“ ‘Very truly yours,

“ ‘V. H. HENDERSON,

“ ‘Secretary of the Regents.

“ ‘To the Board of Trustees of

“ ‘Leland Stanford Junior University,

“ ‘Nevada Bank Building

“ ‘San Francisco, California.’

“ ‘And whereas, this Board of Trustees being entirely in accord with the desire expressed by the Regents to effect a merger of the work in medicine by the two universities, if such a merger were possible, appointed a committee for that purpose which has carefully considered and reported upon the questions involved therein, after obtaining the aid and advice of educational experts, now be it

“ ‘Resolved, that this Board of Trustees after full deliberation is reluctantly convinced that no basis of merger of the said two medical

schools can be formulated or exists, which is compatible with the legal powers and duties of either university; and further that if such a merger could be formed it would cause no material saving in expense to either university and that the interests of each university and of the public will be best served by the maintenance of the two separate schools, each pursuing its own methods and standards, and so far as possible supplementing each other.

“Resolved, that the Secretary of this Board of Trustees transmit a copy of these resolutions to the Regents of the University of California in reply to their letter.”

Additional Nurses for University Hospital:

On August 12, 1913, \$6332 was appropriated as an addition to the budget allotment for 1913-14 for the University Hospital, to provide for the extra nurses needed by the University Hospital, on account of the passage of the amendment of the eight-hour law for women.

Department of Pediatrics:

On June 9, 1914, it was voted that the Department of Pediatrics be separated from the general division of Medicine, and be considered a department by itself in the Medical School.

Los Angeles Medical Department for Graduate Students Only:

On April 14, 1914, the plan proposed by Dean W. Jarvis Barlow of the Los Angeles Medical Department was approved that no new undergraduate students be admitted to the Los Angeles Medical Department. Instruction for graduate students will continue to be given, a vast amount of clinical material being available in the polyclinic maintained by the Department.

Resignation of Dean Barlow:

On April 14, 1914, in accepting the resignation as Dean of the Los Angeles Medical Department which Dr. W. Jarvis Barlow had tendered, the Regents voted to “express their appreciation of the value and unselfishness of the services which Dr. Barlow has rendered to the University.”

Contract for Los Angeles Medical Department:

On May 12, 1914, a general contract for \$4411 for building work for the Los Angeles Medical Department was awarded to the Kling Company. This is for additional accommodations for clinical work.

Dispensary Fee, Los Angeles Medical Department:

On September 9, 1913, it was approved that the Los Angeles Medical Department be authorized to charge a fee of from 10 cents to 25 cents for dressings and dispensary treatments, the moneys so collected to be held in the dispensary fund, to be drawn on by the head of the department, upon the approval of the Comptroller, for the purchase of drugs.

Dr. Geo. H. Whipple, Director of the Hooper Foundation:

On June 9, 1914, President Wheeler reported that Dr. George H. Whipple, Associate Professor of Pathology in Johns Hopkins University, had accepted the Directorship of the George Williams Hooper Foundation for Medical Research—the first appointment to the scientific staff of this research institution, to endow which Mrs. Hooper has given property worth much more than a million.

Regent Foster a Director of the Hooper Foundation for Medical Research:

On April 14, 1914, the Regents voted to appoint Regent Arthur William Foster as the representative of the Board of Regents on the Board of Directors of the George Williams Hooper Foundation for Medical Research, for the year beginning April 1, 1914.

Vaccination Requirement Sustained:

On August 12, 1913, it was reported to the Board by the Dean of the Faculties, Professor David P. Barrows, acting in President Wheeler's absence in Europe, that a communication had been received from Mr. Jacob M. Blake, attorney for Mr. Allen F. Williams, a student who had been denied admission to the

University because of the unwillingness of his parents that he should comply with the regulation of the Regents requiring vaccination, and that Mr. Blake's letter, asking that the vaccination requirement be waived, had been acknowledged with the information that his communication would be reported with adverse recommendation. By vote of the Board this action was approved.

Law Library Fee:

On April 14, 1914, the President's recommendation was approved that a law library fee of \$12.50 a semester be charged all students, regular and special, who are registered in more than one professional course in law in the School of Jurisprudence; and that all moneys accruing from such fees be devoted to the purchase of books for the law library of the School of Jurisprudence.

University Extension:

On August 12, 1913, it was approved that University Extension work be undertaken, the expenditures for the year to be kept within \$10,000.

University High School:

On June 9, 1914, President Wheeler presented to the Board the following communication from the Department of Education of the University, addressed to the Regents:

"Gentlemen: The Department of Education of the University has received an offer from the Board of Education of Oakland which will be submitted to you by President Wheeler as follows:

"1. The Board of Education of Oakland offer a building furnished and equipped for our occupancy and control as a practice school to be known as The University High School.

"2. The Oakland Board of Education asks that Professor C. E. Rugh act as principal of the school.

"3. They further offer to elect and employ a supervisory teaching force nominated by the Department of Education of the University."

It was reported that the following communication of June 11, addressed to President Wheeler, had been received from Superintendent of Schools A. C. Barker of Oakland:

“At a meeting of the Committee of the Whole of the Oakland Board of Education yesterday, a resolution was passed offering the Emerson School as a University Training School. The Board of Education will provide for the payment of the salaries of the heads of departments who are to be chosen upon the nomination of the Department of Education of the University of California. I would suggest that Professor Rugh be chosen principal of the school and that a vice-principal be selected to act as principal in his absence. . . .”

Such approval of co-operation between the University and the Oakland Board of Education was approved, with the understanding, however, that no financial contribution will be made by the University toward the work.

Resolutions from San Francisco Democratic Club:

On November 11, 1913, resolutions from the San Francisco Democratic Club, dated October 16, 1913, were received and placed on file. These resolutions criticised Professor David P. Barrows, head of the Department of Political Science, for expressing publicly his opinions in regard to the relations between Mexico and the United States. The resolutions called forth a public letter from Governor Johnson declaring perfect freedom of speech the most precious possession of a University.

Sather Professorship in Classical Literature:

On March 10, 1914, it was approved that the income of the Jane K. Sather Classical Chair Fund be used (for the first time) for remuneration of John L. Myres of Oxford as Sather Professor in Classical Literature, from January 1, 1914, to June 30, 1914. On May 12, 1914, it was approved that John Swinnerton Phillimore, Professor of Greek in Glasgow University, be appointed Sather Professor in Classical Literature for 1914-15, his active service to be limited to the second semester of the year. These two appointments are in pursuance of the plan of using the income of the Sather Professorship in Classical Literature to

bring to the University each year some celebrated scholar for a half-year or a year of membership in the University community.

Estate of Ernest V. Cowell:

On January 13, 1914, Warren Olney, Jr., the Attorney for the Regents, was authorized to appear as Attorney for the Regents in the matter of the Estate of Ernest V. Cowell, who had bequeathed three-quarters of a million to the University to build a gymnasium, a stadium on California Field, and a hospital on the grounds at Berkeley.

D. O. Mills Fund Accretions:

On February 10, 1914, it was voted that any unexpended balance remaining in the income of the D. O. Mills Endowment Fund at the end of any fiscal year be added automatically to the principal of the fund, unless otherwise recommended by the President of the University.

Pacific Improvement Company Withdraws Offer of Site:

On January 13, 1914, it was reported that the Pacific Improvement Company had now withdrawn its offer, made some years previously, of "Chinatown Point," between Monterey and Pacific Grove, as a site for a seaside laboratory.

Will of Madam Colin:

On January 13, 1914, it was approved that the case of the will of Madam Thérèse F. Colin, in which the University was named as residuary legatee, be allowed to take its course before the court, without protest, the possible claim of the University being of such a nature and the amount involved so small that other action in the matter seemed inadvisable.

Kearney Endowment for Agriculture:

On August 12, 1913, it was voted that \$40,000 be expended during 1913-14 on the work of the Department of Agriculture, as a charge against the income of the Kearney Vineyard, this being the first use for University purposes of the income of the

5400-acre estate near Fresno, bequeathed to the University by M. Theo. Kearney in 1906.

Forestus Phelps Memorial Loan Fund:

On March 10, 1914, the Regents approved adoption of the following resolutions:

“WHEREAS, EDITH P. HAMBROOK, wife of Thomas Hambrook, of Santa Cruz, California, has delivered to THE REGENTS OF THE UNIVERSITY OF CALIFORNIA Investment Certificate No. 10,433 dated December 10, 1913, of THE REALTY UNION, a corporation, wherein and whereby said corporation promises to pay the sum of Six Thousand Dollars (\$6000.00) ten years after date, with interest at the rate of six per cent per annum, payable quarterly, which said Certificate was payable to said Edith P. Hambrook or Thomas Hambrook, and has been by both of them assigned, by endorsement thereon, to the University of California, upon the trusts and conditions set out in the letter of said Edith P. Hambrook to the President of the University under date of February 10, 1914, which letter is in the words and figures following, to-wit:

“ ‘Santa Cruz, California,
“ ‘February 10, 1914.

“ ‘Mr. Benj. I. Wheeler,
“ ‘President, University of California,
“ ‘Berkeley, California.

“ ‘Dear Sir:

“ ‘I am in receipt of your kind favor of February 6th relative to the action taken by the Finance Committee upon my proposed offer of a \$6000 memorial loan fund, and will say that the gift consists of an investment certificate issued by the Realty Union, with office in First National Bank Building, San Francisco, California, face value \$6000.00, with interest at 6 per cent payable quarterly; principal payable ten years after December 10, 1913.

“ ‘It is my desire and intention to turn this certificate over to the University for them to handle as they deem to the best interest of all interested and assume all responsibility for the careful handling and management of the fund, and when the same is converted into cash, for the University to exercise its discretion in re-investment of the principal as they may deem advisable. I desire to be relieved of all responsibility and will ask only that the interest be paid to myself quarterly during my lifetime, and in event that my husband, Thomas Hambrook, shall survive me, to be paid to him quarterly in the same

manner during his lifetime, the fund to be known as the "Forestus Phelps Memorial Loan Fund."

" 'I am making this gift at this time for the purpose of avoiding the provision of law which limits the gift for charitable purposes by will to one-third of the estate of the testator. I propose to make further additions to this fund by my last will and testament, and the whole shall be for the purpose of aiding poor students of Santa Cruz County, California, who would otherwise be unable so to do to acquire a University education.

" 'Should this meet with your approval kindly prepare such evidence as is customary in similar cases of scholarship gift funds and advise me what method is most practicable in delivering to you the certificate of investment above mentioned for \$6000.00

" 'Awaiting your kind favor in the premises, I am,

" 'Yours very truly,

(Signed) " 'EDITH P. HAMBROOK.' "

"NOW, THEREFORE, BE IT RESOLVED, That the gift of said Certificate, upon the terms and conditions set out in said letter, be and the same is hereby accepted.

"BE IT FURTHER RESOLVED, That the thanks of this body be formally extended to Mrs. Hambrook for her beneficence, and that the Secretary be instructed to transmit to her a certified copy of this resolution."

Contingent Claim for James Denman Bequest of \$3000:

On November 11, 1913. it was reported that the Regents have a contingent claim to a bequest of \$3000 made by James Denman to endow a medal or scholarship fund, and it was voted that due memorandum be made in the books of the University concerning this contingent claim, and that the Comptroller's Office be directed to make annual inquiry as to whether the University's contingent claim has become an actual claim. The Finance Committee reported that:

"The Estate of James Denman has paid over to the Board of Education of San Francisco \$3000. the net income to be applied to the purchase of medals for the most deserving girls graduating from the public grammar schools of San Francisco. If the Board of Education shall at any time resolve to discontinue, or shall for

any calendar year cease to give medals as so provided for, the fund is to revert to The Regents of the University of California, and the income thereafter to be applied to the support of the James Denman Scholarships for deserving young women, preferably to young women preparing to enter upon some municipal employment in connection with recreation for young people. The following trust agreement was signed on September 10, 1913, by representatives of the City and County of San Francisco:

“ ‘We, the undersigned, the Mayor of the City and County of San Francisco, Auditor of the City and County of San Francisco, and Treasurer of the City and County of San Francisco, being the officers in charge of the distribution of the Denman Medal Fund, hereby acknowledge receipt from William Deuman, as executor of the last will and testament of James Denman, deceased, and Helen V. Denman, William Denman and Mary W. Cheatham, heirs of James Denman, deceased, of the sum of Three Thousand Dollars (\$3000); and we agree to hold the same in trust, to deposit in some safe savings bank of the City and County of San Francisco, or invest in the bonds of said municipality, and pay over the net income from said deposit or investment to the Board of Education for the purchase of medals for the most deserving girls graduating from the public grammar schools of said city, or public schools of a grade similar to the grammar schools as now known, if at any time known by any other designation;

“ ‘Provided, nevertheless, that in the event the said Board of Education shall at any time resolve to discontinue, or shall for any calendar year cease giving medals as so provided for, then we shall deliver the said moneys and the proceeds thereof, and any bonds in which they may be invested, to the Regents of the University of California, to be held or sold, and the proceeds reinvested as they shall deem wise, the income from said investment to be paid in scholarships, to be known as the James Denman scholarships, in such amounts as they shall deem wise, to deserving young women students, preferably young women preparing to enter upon some municipal or quasi public employment having in view the systematic regulation, care and fostering of the recreation of young people in large cities;

“ ‘It being our understanding that it was not the desire of James Denman, nor is it the desire of his heirs, that the Board of Education shall deem itself bound to continue the giving of said medals when it shall feel that other systems of stimulating the minds of the young pupils have made the giving of such medals inadvisable, or that the fund or the investments thereof may be more advantageously used by the said Regents of the University of California for the purposes above indicated.’ ”

In pursuance of authorization by the Board an acceptance of the foregoing trust provisions was executed by the President and Secretary of the Board on February 5, 1914.

Associated Students' Store; Reversionary Rights of Regents:

On October 14, 1913, the Regents approved an agreement by which the Students' Co-operative Society transferred its business and property to the Associated Students, this agreement being as follows:

"THIS AGREEMENT, entered into this Eighth day of October, nineteen hundred and thirteen, at Berkeley, California, between the Students' Co-operative Society, of the University of California, Berkeley, California, party of the first part, and The Associated Students of the University of California, Berkeley, California, party of the second part;

"WITNESSETH: That for and in consideration of the sum of One Dollar, the receipt of which is hereby acknowledged, and for the further consideration of the performance of the covenants of the party of the second part hereinafter set out, the party of the first part does hereby bargain, sell, convey, and transfer to the said party of the second part, all its right, title and interest in and to the store and business now known as the Students' Co-operative Society store and operated by the party of the first part together with all of the appurtenances and good will of the said store and business, and all other property owned and possessed by the said party of the first part at the time of this agreement. The party of the first part also agrees that this business may be conducted under the name of the Associated Students' Store of the University of California.

"That in consideration of such transfer by the party of the first part, the party of the second part hereby covenants and agrees to take over all the assets of the said party of the first part and to assume all liabilities of said party of the first part.

"That the said party of the second part further covenants to continue and operate said store for the benefit and convenience of the Faculty and the students of the University of California, for the purpose set forth by Article 11 in the constitution of the Students' Co-operative Society which follows:

"The purpose of this organization shall be to furnish the Faculty and the students of the University with the university supplies at the lowest possible prices and with the greatest possible convenience."

"That the party of the second part further covenants to maintain in connection with this business, an adequate capital fund, and until such time as the store shall be established in permanent quarters a cash reserve of at least Ten Thousand Dollars.

“That the party of the second part further covenants to continue the existing privileges of the present life and annual members to purchase at said store and to collect such rebates on said purchases as may be declared from year to year.

“That the party of the second part further covenants to operate the store as long as it shall deem it advisable so to do, through a special board of directors, appointed by its Executive Committee, to be composed of four representatives of the Student Body and two of the Faculty, and the President and Graduate Manager of the party of the second part.

“That the party of the second part further covenants that in the event that the said party of the second part shall discontinue its organization or for any reason should desire to cease to maintain the Store the business and property shall revert to The Regents of the University of California.

“THIS AGREEMENT is executed by the officers of the parties to it upon the authority of the following resolutions passed at regular meetings of the Students' Co-operative Society of the University of California and the Associated Students of the University of California, held on the Third Day of October, nineteen hundred and thirteen:

“‘RESOLVED, That the members of the Students' Co-operative Society authorize their Board of Directors to transfer the entire business and property of the Students' Co-operative Society to the Associated Students of the University of California.

“‘RESOLVED, That the Associated Students of the University of California authorize its Executive Committee to accept the transfer of the entire business and property of the Students' Co-operative Society.’”

University's Need for Buildings:

On October 14, 1913, the Regents met at Berkeley to discuss the serious housing problems confronting the University because of the fact that the enrollment at Berkeley then exceeded by one-sixth the enrollment of one year before, and because there were eleven hundred more students at Berkeley at that time than on a corresponding date two years before. A small program in the way of temporary building was the best that could be done toward present relief.

Sather Campanile:

On September 9, 1913, the Committee on Grounds and Buildings presented the following report in regard to the Jane K. Sather Campanile:

"Your committee was instructed to keep the cost of the Jane K. Sather Campanile within the sum of \$200,000. We would report the following schedule of costs, in accordance with contracts let:

Elevator	\$3,900	
Excavation and concrete	41,400	
Granite	72,500	
Marble	8,385	
Structural steel	43,000	
Ornamental metal	8,500	
		<hr/>
		\$177,685
Architect's fees at 6 per cent	10,660	
Superintendence, say	3,000	
		<hr/>
		13,660
Balance available for incidentals, alterations, etc.		
		<hr/>
		8,655
		<hr/>
		\$200,000

Sather Bells:

On June 9, 1914, the President of the University was given full power to act in the matter of obtaining bids and awarding contracts for the Sather Bells, for which purpose Mrs. Jane K. Sather had provided \$25,000, these chimes to be placed in the belfry of the Jane K. Sather Campanile.

Planting Work on the Campus:

On December 9, 1913, the Committee on Grounds and Buildings reported that "planting work which is now in progress will during the present season be far advanced toward foresting the hills and cañons in the eastern portion of the University campus. A competent organization has been formed for this work and a propagating house provided. We recommend that planting work on the other portions of the campus now proceed, on the same annual basis of expenditure that has been provided for the forestation work." This was approved, subject to the understanding that the expenditure for 1914-15 should be \$3000. Some 60,000 trees, of over fifty species, were planted on the hill lands of the campus during 1913-14.

Tennis and Basketball Courts:

On September 9, 1913, the following recommendation of the Committee on Grounds and Buildings was approved:

“That the new tennis courts which are to be built from the Permanent Building Fund to replace the existing tennis courts in the Hillegass Tract be placed at the corner of Bancroft way and College avenue, and that two new basketball courts be built also from the Permanent Building Fund north of Hearst Hall, to replace the existing basketball court.”

Lands Received from the Associated Students:

On September 9, 1913, it was reported that the Associated Students had deeded to the University, as a gift to aid in the realization of the plan for the development of a new track on the Hillegass Tract, property on College avenue and Sylvan way acquired by the student body at a cost of \$31,924.58, these properties being described as follows:

The Dora L. Martin property at 2230 College avenue, with a frontage of 100 feet on the south line of Sylvan way and 33 feet 4 inches on the west line of College avenue.

The Clara P. Cowperthwaite property at 2248 College avenue, adjoining the Martin property on the south, with a frontage of 33 feet 4 inches on the west line of College avenue and a depth of 100 feet.

The Addie C. Broderick property at 2644 Sylvan way, adjoining the Martin property on the west with a frontage of 40 feet on the south line of Sylvan way and a depth of 98 to 102 feet.

The Pearl F. Pitcher property at 2246 College avenue, adjoining the Cowperthwaite property on the south with a frontage of 33 feet 4 inches on the west line of College avenue and a depth of 100 feet.

Land Purchases on Barrow and Bancroft:

On August 12, 1913, it was reported that purchase had been completed of properties on Barrow street and Bancroft way, needed as a part of the site for the new running track which the Associated Students had offered to defray the cost of constructing, these properties being as follows:

<i>Grantor</i>	<i>Street Number</i>	<i>Description</i>	<i>Pur P.</i>
Eugenia W. Turner R. C. Turner Jennie L. Barbour F. F. Barbour Jessamine W. Green	2511 Bancroft way	Portion of Hillegass Tract beginning 100 feet east of Telegraph avenue, on the north side of Bancroft way, running thence easterly 60 feet, with a depth of 120 feet.	\$16
Pauline Gunthorp	2513 Bancroft way	Portion of Plot 71, Kellersberger's Map. East of the foregoing lot (Turner, Barbour, and Green), frontage of 40 feet on Bancroft way, depth of 120 feet.	\$10
Peter R. Watters Louise F. A. Watters Hubert C. Wyckoff Anabel Wyckoff	Corner of Barrow and Bancroft	Portion of Plot 71, Kellersberger's Map. East of the foregoing (Gunthorp) lot, frontage of 77.23 feet on Bancroft way, and with a frontage of 120 feet on the west-erly line of Barrow street.	\$22
Ethel Beaver Catton Frederica R. Catton Edith Wheaton Cameron A. G. Cameron	2232 Barrow street	Portion of Hillegass Tract. North of the foregoing (Wyckoff and Watters) lot, with frontage of 35 feet on Barrow street and a depth of 157.23 feet.	\$6
Helen Kidd	2230 Barrow street	Portion of Plot 71, Kellersberger's Map. North of the foregoing (Catton and Cameron) lot, with a frontage of 35 feet on Barrow street and a depth of 157.23 feet.	\$7

Barrow Street and Sylvan Way Closed by City of Berkeley:

On September 9, 1913, it was reported that Barrow street and Sylvan way had both been closed by the City Trustees of Berkeley at the request of the Regents, so that the areas formerly occupied by these streets west of the tennis courts on Bancroft way and south of the Infirmary, respectively, had now become completely the property of the University and available for the development of athletic facilities, etc.

Hillegass Tract Rearrangement for Athletic Purposes:

On October 14, 1913, it was reported that Mrs. Hearst, donor of the site of Hearst Hall and of much valuable surrounding land, had approved the plans for the proposed rearrangement of the Hillegass Tract for athletic purposes.

New Running Track:

On April 14, 1914, it was reported that the Associated Students had prepared preliminary plans for a new running track to be built west of California Field, where the asphalt tennis courts have been hitherto, the cost, including grading, bleachers, timber structure across Strawberry Creek, and a straightaway, etc., to approximate \$38,000, and this cost to be met by gift of the Associated Students. It was reported also that the Supervising Architect would be employed by the Associated Students to draft the final plans and specifications for the entire work west of California Field. The project was approved, subject to final approval of the plans by the President and the Finance Committee.

Hearst Hall Annex:

On September 9, 1913, it was voted that an annex be built for Hearst Hall, to contain an additional exercising room for the gymnasium work of the women students and additional dressing-rooms.

Women's Swimming Pool:

On October 14, 1913, it was approved that the swimming pool for women students, for which Mrs. Hearst had offered to defray half the cost, should be made 40 by 75 feet in size and uncovered, instead of 28 by 60 feet in size, covered, as previously contemplated.

Site Reserved for Training Quarters:

On November 11, 1913, the Regents approved the following recommendation of the Committee on Grounds and Buildings:

"That the request of the Associated Students be granted that the space north of California Field between the two buildings known as the Physiology Building and the Museum of Vertebrate Zoology be reserved as a site for a building to be erected hereafter at their own expense, subject to approval of the plans by the Committee on Grounds and Buildings and the Supervising Architect, this temporary building to be used for training quarters for athletic teams and for quarters for all other students who wish to engage in outdoor athletics.

Drawing Building Addition:

On April 14, 1914, \$12,000 was appropriated from the Permanent Building Fund for 1914-15 for the erection and equipment, exclusive of heating, of the second and third units of the Drawing Building on Hearst avenue, east of the Architecture Building

East Hall Alterations:

On April 14, 1914, \$3025 was appropriated from the Permanent Building Fund for 1914-15 for remodeling four rooms in East Hall, now to be vacated by the Drawing Department, into seven classrooms, seating a total of three hundred students.

Faculty Club Addition:

On April 14, 1914, the Faculty Club was granted permission to build an addition at an estimated cost of \$17,500, this addition practically duplicating the size of the previous quarters. The Regents made a grant of \$2500 toward the cost of this addition, on the ground that the Faculty Club is a necessary and important University institution, and its committee rooms in constant use for various purely University purposes. The addition is to contain, also, a guest-chamber for official guests at the University.

Chemistry Building Addition:

On April 14, 1914, \$40,000 was appropriated from the Permanent Building Fund for the erection and equipment of an addition to the Chemistry Building north of the Chemistry Auditorium, to provide laboratory facilities for 250 students. This means that a thousand students can be accommodated there, since the use of the laboratories will alternate between four sections.

Reservoir Site Engineering Investigations:

On April 14, 1914, \$500 was appropriated from the Permanent Building Fund for obtaining further data with regard to the proposed construction and equipment of a reservoir in Strawberry Cañon, Berkeley, approximately half a mile east of the Swimming Pool, for the impounding of water for use on the

University campus. At this site, acquired in 1909, it is estimated that approximately seventy million gallons can practicably be stored.

Temporary License to City of Berkeley:

On September 9, 1913, in order that the municipality of Berkeley might improve in a sightly and convenient manner the intersection of Prospect street and Cañon road, southeast of the campus, a temporary license, revocable at any time, was granted to the city to use for street purposes a small area of land at that point. This revocable license was as follows:

“That, without the receipt of any consideration therefor, the party of the first part hereby grants to the party of the second part a temporary license to use for street or road purposes the following described portion of the grounds of the University of California, in the City of Berkeley, County of Alameda, State of California, to-wit:

“BEGINNING at the boundary corner of the property acquired from Horace Davis by The Regents of the University of California on May 16, 1888, by Deed recorded in the office of the County Recorder of Alameda County January 10, 1889, in Liber 360 of Deeds, at page 460, which corner is distant 30.59 feet north 70° west from a point on the center line of Prospect street as said Prospect street is shown on Map entitled ‘University Terrace, Berkeley, Calif.,’ filed in the office of the County Recorder of Alameda County, August 18, 1888, said last named point being distant 449.19 feet from the center line of Channing way; thence along the boundary line north 70° east 60.06 feet; thence north 27° east 99.66 feet; thence north 89° 15′ west 20 feet, leaving the boundary line; thence south 0° 45′ west 21.59 feet; thence tangent and curving southerly and westerly 56.20 feet along an arc whose radius is 40 feet; thence south 81° 15′ west 42.94 feet along the tangent to the last named curve; thence tangent and curving westerly and northerly 13.02 feet along an arc whose radius is 15 feet to a point which is on the property line of The Regents of the University of California and is 46.52 feet north, 8° 45′ west from the point of beginning.

“Said license is granted upon the express condition that the same may be revoked at any time at the pleasure of the party of the first part, and that the party of the first part shall have the right at any time it may desire to enclose the land above described and to prevent its use for street or road purposes, or for any other purpose not at the time agreeable to the party of the first part.”

* In the original document dimensions are given both in words and in figures.

Damage by Lightning at the Lick Observatory:

On March 10, 1914, it was reported to the Regents that lightning had caused damages of approximately \$300 to buildings and equipment at the Lick Observatory on February 18, 1914.

Aerological Observatory Recommended:

On August 12, 1913, it was reported by the President that he had received from Professor Alexander G. McAdie a communication addressed to the Board of Regents recommending the establishment under the University of an aerological observatory.

Agricultural Advisors:

On August 12, 1913, the system of Agricultural Advisors was inaugurated by the appointment of Andrew Hansen Christiansen as Assistant in Agricultural Extension, to act as Agricultural Advisor, with headquarters for 1913-14 at Eureka, Humboldt County. It is planned that eventually every agricultural region in California shall have such an advisor, the cost of the work being divided between the University, the United States Department of Agriculture, and the various communities. The function of the advisor is to aid the local community to bring into actual daily use the accumulated results of agricultural science, and to serve as an intermediary between the scientific worker and the practical farmer for the solving of special problems. In Humboldt County already the advisor has shown that farm yields may be doubled by applying lime to the soil.

On September 9, 1913, the Committee on Agriculture reported its "heartily approval of the plan which has been worked out by President Wheeler, Dean Barrows, and Dean Hunt, by which a beginning will this year be made in a system of agricultural advisors."

The committee further reported that B. H. Crocheron had been appointed by the Regents Assistant Professor of Agricultural Extension, with the understanding that the Office of Farm Management of the United States Department of Agriculture would appoint him State Leader and would duplicate the Uni-

versity's payment to him of \$1500 per annum, and would contribute \$250 toward the expenses connected with his position, the University to furnish the remainder of the expense as part of the work of the department of Agricultural Extension of the University, within, however, such grants for expense as might be made by the President and the head of the Agricultural Department from the budget allotment for Farmers' Institute work. The committee concurred with the President in recommending that Andrew Hansen Christiansen be appointed Assistant in Agricultural Extension, to act as Agricultural Advisor, with headquarters for 1913-14 at Eureka, the Supervisors of Humboldt County to give \$1000, and the Dairymen's Association of Ferndale and the Chamber of Commerce of Humboldt County to give \$500 each toward the work of the Advisor in that county, and the total expenses to be shared equally between the College of Agriculture and these local agencies, the contribution of the University for work in Humboldt County not to exceed, however, \$2000 per annum. The salary of Mr. Christiansen is to be paid wholly by the University as a charge against the State appropriation for the Department of Agriculture. The expenses to be borne by the University are subject to the approval of the President and the head of the Agricultural Department, and within the limits of the moneys available under the budget allotment for Farmers' Institutes.

"It is hoped in future years," reported the committee, "that as other parts of California express willingness to make liberal contributions toward the expenses of such local advisors, that this co-operative work for bringing into general use the best results of modern agricultural science will receive further development."

The report of the committee was concurred in.

Ministers' Week at the Farm:

On December 9, 1913, the Regents received the following resolutions adopted by the clergymen of California assembled at the University Farm from December 1 to 5, inclusive, for Ministers' Week:

“RESOLVED, By the ministers assembled for ‘Ministers’ Week’ at the University Farm at Davis, that we express our hearty appreciation of the courtesy and generosity of the Southern Pacific, the Santa Fé, Western Pacific and the Northwestern Pacific railroads in granting free transportation for ministers to and from the meeting.

“RESOLVED, That we extend a most hearty vote of thanks to President Wheeler of the University of California, and Dean Hunt of the College of Agriculture, for their wisdom and breadth of vision in initiating this gathering; and to Professor B. H. Crocheron, Dean Van Norman and all of the members of the faculty.

“RESOLVED, That our especial thanks are due to the student body of the Davis Farm School for the unfailing courtesy with which we have been received, and for the remarkable self-sacrifice with which they literally turned themselves out of house and home that we might be comfortably entertained.

“RESOLVED, That in view of the unique character of this gathering and its unqualified success, we express our hope that the university authorities will arrange for the publication of an official pamphlet reporting the same for information and suggestion to other universities.

“RESOLVED, That the ministers present make this conference the subject of a sermon or address in the near future.

“RESOLVED, That in view of the fellowship, the intellectual stimulus and the practical enlightenment on the problems of country life we have all received, we suggest that so far as the clergy of the state are concerned, it seems to us very desirable that some such meeting as this be repeated whenever in the judgment of the University authorities it may be wise and convenient—if possible, once every two years.”

Site for Southern California Experiment Station:

On September 9, 1913, it was voted that in order that a site might be selected for the Southern California Experiment Station, for the purchase of which \$60,000 has been appropriated by the Legislature at the session of 1913, two committees be appointed; that Dr. Thomas Forsyth Hunt, Dean of the College of Agriculture, Dr. H. J. Webber, Dean of the Graduate School of Tropical Agriculture, and Professor J. E. Coit should be appointed: that Dr. Thomas Forsyth Hunt, Dean of the College of Agriculture, should be appointed for the station, and for the purpose of finally recommending to the Regents those sites which in their opinion best meet the needs of the station, and that this committee should recommend

at least two possible locations; and, further, that the following-named should be invited by the Regents to act as an advisory committee, they, at the wish of the faculty committee, to meet with the faculty committee for the purpose of arriving at a solution which would not only be satisfactory to the University but also to the growers of Southern California, this advisory committee to consist of E. A. Chase, Riverside; C. C. Chapman, Fullerton; C. O. Teague, Santa Paula; R. C. Allen, San Diego; and John Lindley, Azusa.

On March 10, 1914, it was voted that all matters germane to the subject for a site for an experiment station in Southern California be referred to the special committee on this subject.

On April 14 two committees from Southern California appeared before the Board to advocate the selection of a site at Riverside and a site at San Fernando, respectively, the representatives of San Fernando being Messrs. Fred W. Prince, F. D. Parker, and H. C. Hubbard, and the representatives of Riverside being Messrs. V. C. Evans, E. A. Chase, L. V. W. Brown, E. S. Moulton, W. B. Clancy, and Joseph F. Daniels.

At various meetings of the Board a large number of letters and telegrams were presented, from organizations and individuals in various parts of California, making recommendations for and against various proposed sites for the experiment station to be established in Southern California.

Student Fees, University Farm:

On June 9, 1914, it was voted by the Board (and on June 23 concurred in by the Finance Committee) that beginning with the first semester of 1914-15 a registration fee of \$5 per semester be charged all students of the University Farm School resident in the State, \$15 per semester for non-residents, that a registration fee of \$2 be charged to short course students at the University Farm, and a registration fee of \$1 for visitors who stay at the University Farm from one to four weeks, all these fees to be applied to the infirmary and the physical training advantages of the University Farm.

Adams Fund Agricultural Investigations:

On August 12, 1913, the Regents voted that the Adams Fund of \$15,000 per annum, granted by the United States for agricultural investigations, should be segregated as follows:

For investigation of diseases of domestic animals.....	\$5,000
Plant diseases	2,400
Chemical and biological studies with reference to soil fertility	5,400
Entomological studies	1,600
Botanical investigation	600
	<hr/>
	\$15,000

New Buildings at University Farm:

On September 9 contract was authorized for a dormitory at the University Farm, upon approval by the Committee on Agriculture and the Finance Committee, provided that the cost should not exceed \$36,500.

On September 9, 1913, the erection by day's work was authorized of certain buildings at the University Farm, the cost not to exceed the following amounts:

Addition to the Dining Hall	\$16,000
Farm Machinery Shop	2,500
Poultry Laying House	900
Office Building	2,500
	<hr/>
	\$21,900

On May 12, 1914, a contract was awarded to J. W. Carr for a classroom building at the University Farm at \$47,340.

On December 9, 1913, it was approved that a beef barn at the University Farm be erected by day's work. the cost to be kept within \$2700.

Hog Serum to be paid for in Advance:

On January 13, 1914, it was voted that hog serum, unless paid for in advance of its sending, should be sent C. O. D.

Testing of Dairy Cattle for Pasadena:

On December 9, 1913, the Dean of the College of Agriculture was authorized to enter into a contract with the Pasadena Board

of Health through their Health Officer to take charge of the testing of dairy cattle required by the Board, for this the Pasadena Board of Health to pay to the Regents \$75 per month.

Lease for Hog Serum Laboratory:

On October 14, 1913, the Regents approved a lease from Louis Schaffer to the Regents for one acre of land in Oakland for two years, at \$35 a month, as a site for the plant at which the Agricultural Department prepares serum for the immunization of swine against hog cholera, with option for renewal at \$50 per month and with option to the Regents during the last three years to cancel the lease on thirty days' notice if laws or ordinances of nation, state, county, or city restrain the Regents from carrying on such a plant at such place.

Reversionary Clause for Imperial Valley Station:

On October 14, 1913, the Regents authorized an indenture to the Supervisors of Imperial County, providing that in the event ten acres donated to the Regents in 1911 by Imperial County for an experiment station site ceases to be used as an agricultural experiment station that this land shall revert to Imperial County.

Farm Management and Agricultural Demonstration:

On September 9, 1913, Dr. Thomas F. Hunt, Dean of the College of Agriculture, was authorized to sign an agreement between the College of Agriculture and the Bureau of Plant Industry of the United States Department of Agriculture relative to farm management field studies and demonstration in California, as follows:

“The object of this co-operative work shall be to conduct farm management field studies and demonstrations to the end of upbuilding agriculture in the State of California.

“In performing this work it is understood that the following plan shall be pursued:

“1. There shall be employed, under the joint direction of accredited representatives of the College of Agriculture of the University of California and the Bureau of Plant Industry, U. S. Department of Agriculture, a man known as a State Leader, who shall have charge of all farm

management field studies and demonstrations to be carried on in California under this co-operative arrangement and devote his entire time to this work. The salary and expenses of this State Leader shall be shared equally by the College of Agriculture of the University of California and the Bureau of Plant Industry. In addition it is understood that the College of Agriculture of the University of California will furnish adequate office facilities for the use of the State Leader in connection with this work. The headquarters of the State Leader shall be at Berkeley, California, and it shall be his duty to report on the work accomplished, at such times and in such manner as may be mutually agreed upon by the parties to this understanding, one copy of which shall be furnished to the Office of Farm Management, Bureau of Plant Industry, Washington, D. C., and the other to the College of Agriculture of the University of California.

“2. For the purpose of carrying concrete results to the farmers it is understood that one competent person known as a County Agent shall be placed in each county within the state as rapidly as circumstances warrant and funds permit. It shall be the duty of the County Agent to co-ordinate and apply the results of the work conducted by the several departments of the College of Agriculture of the University of California, the regional studies made by the Office of Farm Management, U. S. Department of Agriculture, and such general studies of farm practice as may be made by the Agent in the course of his work, to the end of carrying concretely to the farmers of the county or community, on their own farms, successful practices in agriculture; to aid in the reorganization and redirection of the agriculture of the county, in so far as may be found possible and desirable, and to co-operate with agricultural clubs, associations, and other organizations whose object is the betterment of agricultural and rural conditions throughout the county. Each County Agent shall devote his entire time to this work, shall be directly responsible to the State Farm Management Leader, at Berkeley, California, and shall report the results of his work to the State Leader, at such times and in such manner as shall be agreed upon by the parties to this understanding. One copy of all reports from County Agents shall be filed with the Office of Farm Management, Bureau of Plant Industry, Washington, D. C. It is understood that the salary and expenses of the County Agent shall be paid jointly by the parties of this co-operative arrangement or from funds which may be contributed by local individuals, organizations, municipalities, or county governments for the furtherance of this work.

“3. It is understood that as the number of County Agents within the State increases, assistants will be given the State Leader to help organize and supervise the work, the salary and expenses of these assistants being paid jointly by the co-operating parties to this memorandum.

“4. It is understood that all appointments of County Agents must be mutually agreeable to both parties to this memorandum, and that separate memorandums covering the work in each county will be executed as occasions arise.

“5. Each party to this understanding shall be free to use the results of the work in correspondence or in publications, subject to the approval of the other party; it being understood that in all publications of results proper recognition shall be given to the co-operative nature of the work.

“6. This memorandum shall take effect September 1, 1913, and continue in force until such time as circumstances may necessitate any change of policy.”

Agreement with United States Department of Agriculture Regarding Drainage Investigations:

On October 14, 1913, the Dean of the College of Agriculture was authorized to sign an agreement, providing for drainage investigations in California, between the California Experiment Station and the Office of Experiment Stations of the United States Department of Agriculture, as follows:

“In order to promote the agricultural development of lands by drainage, in California, the following agreement for the fiscal year ending June 30, 1914, is entered into by the California Experiment Station and the Office of Experiment Stations, United States Department of Agriculture.

“A drainage engineer of the Office of Experiment Stations, who shall be experienced in the drainage of irrigated lands, will have charge of the work, his whole time being given to the investigations approved by both parties to this agreement. His salary and expenses, including annual vacation and any required sick leave, will be divided equally by the parties to this agreement, he being carried on the rolls of each party for alternate periods of three to six months.

“The California Experiment Station will furnish at the University of California a suitable office for the use of the person assigned to conduct the investigations covered by this agreement, including light, heat, water, and janitor service, and will provide also the necessary clerical assistance. The engineer in charge shall have the use of the blue-print and photographic laboratories available for the Experiment Station, with their equipment, suitable arrangements being made for covering the cost of material used. The California Experiment Station will make the necessary soil and chemical examinations.

“The Office of Experiment Stations will furnish all the necessary field instruments, special equipment, and supplies for the conduct of the work, which shall remain the property of the Office of Experiment Stations.

“It is further mutually agreed:

“1. That before any investigations are undertaken a general outline of the proposed work shall be submitted to and approved by the Director of the California Experiment Station and the Director of the Office of Experiment Stations or his designated representative. The engineer in charge of the work shall be ready to receive suggestions at all times, but he shall be free to use his own judgment in the solution of his problems, subject to the usual supervision of the Chief of Drainage Investigations.

“2. That copies of all data and reports shall be furnished to both parties, the original field data becoming the property of the Office of Experiment Stations, but such data shall always be available to the California Experiment Station.

“3. That each party to this agreement shall have the privilege of using in correspondence and in publications any of the data obtained, provided due credit be given in the publications to the co-operative character of the work. Copies of articles or reports prepared by either party shall be submitted to the other party for comment and criticism before being made public. If either party shall publish any conclusions or deductions based on these investigations without the approval of the other party, such lack of approval shall be plainly stated.

“4. That any assistance required in the conduct of the co-operative work additional to that stated above, shall be provided for by special agreement.

“5. That either party may make drainage investigations in the State independently, if the other party does not wish them included under this co-operative agreement.

“In accordance with this agreement the following lines of co-operative investigation will be undertaken:

“1. Studies will be made of the methods of reclaiming water-logged, alkaline, swamp, and overflowed lands, including tidal marshes, throughout the State, to determine what principles should govern the design and construction of drainage works, and wherein present practice may be improved.

“2. Data will be collected relative to the proper arrangement, depth, size, and spacing of drains, with examinations of both the surface and the sub-surface conditions of soil, soil water, and alkali that may effect the drainage problem.

"3. The requisite preliminary surveys will be made and plans prepared for drainage systems, with such reports, drawings, and specifications as seem expedient, and the necessary supervision will be given in the construction work, for such experimental projects as may be jointly selected by the duly accredited representatives of the parties to this agreement.

"4. Conferences will be held, addresses will be given, and articles will be written for publication, to educate the people as to the benefits of drainage and to encourage organization for co-operative drainage work.

"The funds expended by each party to this agreement in the conduct of the co-operative investigations will be disbursed in accordance with the usual practice of the party. This agreement shall be effective from the date the drainage engineer of the Office of Experiment Stations arrives at the University of California to take charge of the work, and shall terminate June 30, 1914. Each party to the agreement shall contribute during the period named, according to the needs of the work, not less than \$1000 and not more than \$2000, not including the salary or travel expenses of representatives of either party for inspecting or supervising the work of the engineer in charge. This agreement may be amended, terminated, or renewed by mutual consent of both parties to it."

Soil Survey Co-operation:

On September 9, 1913, co-operation with the United States Government in a soil survey of California was approved through the sanctioning of a co-operative agreement between the Agricultural Experiment Station of the University of California and the Bureau of Soils of the United States Department of Agriculture in regard to soil survey work in California as follows:

"The following points are suggested as a general basis upon which the Agricultural Experiment Station, University of California, and the Bureau of Soils of the United States Department of Agriculture agree to co-operate to complete the soil survey of the State of California. It is understood that this agreement is contingent upon action of the Legislature of the State of California and the Congress of the United States.

"1. The soil survey work shall be of two general characters, a general or reconnaissance survey of large areas on a scale of four or six miles to the inch, and of detailed surveys of counties on a scale of one mile to the inch.

"2. In so far as possible in the conduct of the detailed soil surveys the Bureau of Soils is to furnish one field assistant for each one furnished by the Agricultural Experiment Station, the two to constitute a soil survey party, each institution paying the salary of the man thus furnished, the subsistence, and sharing equally the expense for livery hire. If possible, two or more soil survey parties will be maintained continually in the State.

"3. The selection of the areas to be taken up is to be mutually agreed upon by the Dean of the Agricultural Experiment Station and the Chief of the Bureau of Soils.

"4. Manuscript copies of all field reports in full, and of all soil survey maps are to be furnished to the Agricultural Experiment Station as soon as the field work is completed and the report and maps are compiled. Each institution is to have the privilege of independent publication of any or all of the report in full or in part, provided that all reports thus published by either organization shall show upon the report and upon the map the fact of co-operation between the two organizations. It is further agreed that the publication of all soil survey reports under the provisions of the joint resolution of the House and Senate of the United States, entitled, 'Resolution Number 9,' approved March 14, 1904, that the Bureau of Soils shall furnish for the use of the Agricultural Experiment Station, one hundred copies of the reports so published and to aid so far as possible under the law, the Agricultural Experiment Station in securing the publication of additional copies of the reports and maps.

"In the matter of soil nomenclature and correlation, the broader knowledge possessed by the Bureau of Soils staff is hereby recognized. The necessity of making the soil maps of California harmonize with those of other portions of the United States where the same types of soil are found, makes it necessary that the Bureau should have complete control of this matter. The California station asks, however, the privilege of expressing its views and desires in cases where local geological and physical conditions vary from those of the type locality.

"The California Experiment Station may require a map in which the soil differentiation has been carried to a somewhat greater degree of subdivision than is required by the Bureau. The California survey shall therefore indicate the places where such increased differentiation should, in its opinion, be worked out."

(Signed) "MILTON WHITNEY,
"Chief, Bureau of Soils.

(Signed) "THOMAS F. HUNT,
"Dean and Director, California
Agricultural Experiment Station.
University of California.

"June 19, 1913."

Agreement Regarding Soil Survey Work in California:

On March 10, 1914, agreement was authorized as follows between the Geological Survey and the College of Agriculture for soil survey work in California, it being understood that one-half of the expenses are to be paid by each party, the University's share of the expense to be provided for out of the State appropriation of the Department of Agriculture:

"AGREEMENT between the Director of the United States Geological Survey and the University of California, for executing a co-operative topographic survey of the Santa Rosa 15' quadrangle, latitude $38^{\circ} 15'$ to $38^{\circ} 30'$, longitude $122^{\circ} 30'$ to $122^{\circ} 45'$, in the State of California.

"1. The preparation of the map shall be under the supervision of the Director of the United States Geological Survey, who shall determine the methods of survey and map construction.

"2. The survey shall be executed in a manner sufficiently elaborate to prepare maps upon scales which may be agreed, exhibiting the hydrography, hypsography, and public culture, and all town and county boundary lines, township and section lines, as marked upon the ground at the time of its completion, in form similar to sheets already completed in the State. The preliminary field maps shall be on such scale as the Director of the United States Geological Survey shall select to secure accuracy in the construction of the final map.

"3. The hypsography shall be shown by contour lines with vertical intervals of from 5 to 100 feet, as may hereafter be mutually agreed upon.

"4. The heights of important points shall be determined and furnished to the University of California.

"5. The outlines of wooded areas shall be represented upon proofs of the engraved maps to be furnished to the University of California.

"6. The cost of this survey, including salaries and the necessary traveling, field and other expenses in connection with the proper execution of the field and office work shall be divided between the two agreeing parties in such a way as to equalize all expenditures, PROVIDED That the total cost to the University of California for field and office work shall not exceed two thousand five hundred (\$2500) dollars, but shall be as much thereof as may be necessary to the completion of the work, and provided that the United States Geological Survey shall, after the Federal appropriations are available, expend an equal amount before June 30th, 1915, the Federal allotment to bear an approximate charge of $12\frac{1}{2}$ per cent for the necessary expense in connection with the proper execution of the field and office work. All accounts shall be approved by a representative

of the United States Geological Survey before being presented for payment.

“7. During the progress of the work free access to the field sheets and records of the topographic engineers and draftsmen shall be afforded the University of California, or its representatives, for examination and criticism; and, should said University of California deem that the work is not being executed in a satisfactory manner, then it may, on formal notice, terminate this agreement.

“8. The resulting maps shall fully recognize the co-operation of the University of California.

“9. When the work is completed the University of California shall be furnished by the United States Geological Survey with photographic copies of the manuscript sheets; and when the engraving is completed, and at all times thereafter when desired, it shall be furnished by said Survey with transfers from copper plates of the maps for use in printing editions of said maps.

“Washington, D. C., February 17, 1914.”

Budget for 1914-15:

On April 14, 1914, the Regents adopted a budget for 1914-15 which contemplated the expenditure during the year of approximately \$2,830,981.60, in this figure being included \$844,278.97 for building operations, including the \$616,500 subscribed for the University Hospital; \$233,178.97 for the Permanent Building Fund, \$6600 income of the Doe Library Fund, and \$5000 of estimated receipts from subscriptions for Boalt Hall of Law.

Endowment Pool:

On September 9, 1913, it was reported that the rate of distribution of the Endowment Pool for the half-year ending December 31, 1912, was 5.32 per cent per annum, and for the year ending June 30, 1913, 5.6 per cent per annum.

Presidential Retiring Allowances:

On June 9, 1914, Standing Order No. 444, providing for retiring allowances for professors, was amended by the addition of the following words: “A President of the University shall be entitled to a retiring allowance under the same terms as set forth above for professors.”

Loans on Collateral Security:

On December 9, 1913, the Finance Committee was authorized to make loans on collateral security during 1914.

Readers for the Blind:

On March 10, 1914, it was voted that as recommended by the Finance Committee "any blind person asking for the provision by the University of a reader be informed that no funds are available for such a purpose," this action being taken in pursuance of legal advice received that day that the Act in regard to readers for the blind was not constitutionally applicable to the University.

Land Purchases on Addison and Oxford:

On December 9, 1913, the action of the Finance Committee was approved in having purchased as an investment of endowment funds the following Berkeley properties adjoining the University campus on the west:

From Mary W. Stevens, the northwest corner of Addison and Oxford streets, with a frontage of 138 feet, 6 inches, on the west side of Oxford street, and of 100 feet on the north side of Addison.

From Sarah E. McLean, The Crawford Company, Berkeley Bank of Savings and Trust Company, and Elinor Carlisle, property at the southwest corner of Addison and Oxford streets, with a frontage of 125 feet on the west side of Oxford street and 150 on the south side of Addison street.

Certificate of Authority to Endorse Warrants:

On December 9, 1913, the President and Secretary of the Board of Regents were authorized to sign a "Certificate of Authority to Endorse Warrants," binding until notice of revocation is filed with the Auditor of the United States Treasury Department, authorizing I. W. Hellman, Jr., Treasurer of the University, to sign warrants and transact all business in connection with the Treasury Department of the United States in the name of the Regents.

On March 10, 1914, the following resolutions were adopted:

“RESOLVED, That the Treasurer of The Regents of the University of California be and he is hereby authorized to receive and give receipt for all moneys due and payable to the Regents of the University of California from any source whatever and to endorse warrants and checks in the name of The Regents of the University of California, and on behalf of The Regents of the University of California, and full discharge for the same to give.”

Comptroller Visits Other Universities:

On May 12, 1914, the Comptroller was authorized to make a journey to investigate methods of business administration in use in certain other large universities.

Country Club Heights Company Installments:

On September 9, 1913, it was approved that permission be granted to the Country Club Heights Company to pay at that time the second installment of \$10,000 due on the purchase price of the property, and that the Country Club Heights Company be released from any obligation to pay interest to the Regents for the period March 1, 1913, to February 28, 1914, on balances of the purchase price remaining due to the Regents during that period, this action being taken since previous inability of the Regents to give title (at that time) had delayed the purchasers in reselling the property.

Broadway Terrace Tract Title Affirmed:

On October 14, 1913, it was reported to the Regents that the Appellate Court had affirmed decision in favor of the Regents in the Caldwell case, affecting title to the Broadway Terrace Tract property.

Title Insurance for Broadway Terrace Tract:

On March 10, 1914, the Comptroller was authorized to arrange with a title certificate or insurance company for the issuance of certificates of title or policies of title insurance on the Broadway Terrace Tract lots clear of the pending suit of Cald-

well against the Regents, and in this behalf to arrange a contract whereby the Regents will indemnify the company issuing such certificates or policies from any loss by reason of such suit, and the President and Secretary of the Board were authorized to execute such contract of indemnity when so arranged by the Comptroller.

Country Club Heights Company Deeds:

On May 12, 1914, the following resolution was adopted:

“RESOLVED: That the President and Secretary of The Regents of the University of California be and they are hereby authorized, on behalf of said corporation, and in its name and under its seal, to execute and deliver to the Country Club Heights Company deeds to any and all lots in the Broadway Terrace Tract, in the City of Oakland, County of Alameda, State of California; said deeds to be delivered pursuant to the contract of purchase between The Regents of the University of California and said Country Club Heights Company; the execution and delivery of any such deed to be taken, as between the Regents and any purchaser from said Country Club Heights Company, as final and conclusive evidence of the authority of the President and Secretary to execute such deed.”

Turner Litigation Settled:

On December 9, 1913, the Board authorized an agreement with T. C. Turner, Administrator of the Estate of W. C. Turner, deceased, et al., by which final settlement was reached of the long-pending litigation with the Turner heirs. In March, 1889, the University made a loan of \$47,000 to W. C. Turner on farming lands near Merced. After the death of W. C. Turner, it was contended by the heirs that through various events the University's claim had become an unsecured, instead of a secured claim. The Legislature of 1901 appropriated \$50,000 to reimburse the Endowment Fund of the University should it suffer any impairment on account of the Turner loan. This law directed, however, that in case the litigation should result favorably that all money so appropriated should remain in the possession of the University for its “use, benefit, maintenance, and support.” By the agreement authorized on December 9, 1913, \$60,000, with

interest from December 1, 1913, at seven per cent, was fixed as the settlement of the University's claim, and this amount was secured by mortgage given by the Turner heirs, etc., on a large acreage of valuable farming lands in Merced County.

On May 12, 1914, it was reported to the Regents that a mortgage for \$83,507 had been executed on December 1, 1913, by the Turner heirs, this being sufficient to cover the Law claim for \$23,507 (money to pay which had been advanced by the Regents), and to leave a balance of \$60,000 as the recovery made by the Regents.

Defalcation of H. L. Wright:

On June 9, 1914, it was reported that H. L. Wright, Cashier in the Comptroller's Office, had been found to be a defaulter in the estimated amount of \$14,348. A prompt payment of \$10,000, the amount of his bond, was made to the Regents by the Fidelity and Deposit Company of Maryland, which had supplied his bond. Resolutions of appreciation of the fairness and promptness of the Fidelity and Deposit Company of Maryland were adopted by the Finance Committee on June 23.

Lease of Fourteenth and Washington Streets Property:

On October 14, 1913, the Regents approved of a lease to the University Investment Company, a corporation (Frederick Kahn, President, and George H. Levinson, Secretary, instead of to Charles J. Heeseman, et al., as had been voted on March 11, 1913), of the property at Fourteenth and Washington streets, Oakland, purchased by the Regents from President Wheeler as Trustee for Mrs. Sather. The terms of this lease were as follows:

“Rental at the rate of 6 per cent per annum net (tenant, however, to be under no obligation for taxes) on a valuation, for the first two years and three months of \$500,000; for the next ten years of \$550,000; for the next ten years of \$600,000; for the next twenty years of \$650,000; and for the next ten years of \$700,000; insurance to an amount satisfactory to the Finance Committee to be carried by the lessee; the lessee to agree to begin, within two years after the expiration of the present leases, the erection of a Class A building to cost not less than \$350,000, the plans and specifications for such building to be subject to approval

by the Regents; the lessee to deposit with the Regents securities satisfactory to the Finance Committee, these securities to be retained by the Regents until the lessee has completed the erection of a building on the property to cost not less than \$350,000; said building, as and when built, to be the property of the Regents and to remain the property of the Regents at the expiration of the lease."

Indemnity Bond to Be Used When Checks are Lost:

On November 11, 1913, it was approved that the following form of indemnity bond be used hereafter, to be executed by any person seeking to have a duplicate check issued in place of a lost check:

"KNOW ALL MEN BY THESE PRESENTS:

"That we, of the County of, State of, as principal, and, of, California, and, of, California, as sureties, are held firmly bound unto The Regents of the University of California, a corporation, doing business under and by virtue of the laws of the State of California, in the sum of (\$.....) dollars, gold coin of the United States of America, to be paid to the said The Regents of the University of California, its successors and assigns, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, jointly and severally, firmly by these presents.

"Signed with our names and sealed with our seals, this day of, 1913.

"WHEREAS, the said THE REGENTS OF THE UNIVERSITY OF CALIFORNIA did, on the day of, 191....., make, execute and deliver unto the above bounden its certain check No....., for the sum of (\$.....) dollars, gold coin of the United States of America, drawn on the, and which said check said, since the delivering of the same to him as afore-said, has in some manner unknown to him, lost out of his possession; and,

"WHEREAS, the said THE REGENTS OF THE UNIVERSITY OF CALIFORNIA has this day issued to said a duplicate check for the said amount of, the receipt whereof is hereby acknowledged, in full payment, satisfaction, and discharge of the said check so lost, upon the promise of the said to indemnify and exonerate and forever save harmless the said The Regents of the University of California in the premises and to deliver up said lost check when found to said The Regents of the University of California to be cancelled;

"NOW, THEREFORE, the conditions of this obligation are such that if the above bounden,, his heirs, executors, or administrators, or any of them, do and shall at all times hereafter save and keep harmless and exonerate the said The Regents of the University of California, its successors and assigns, of, from, and against the aforesaid check, and of and from all costs, damages, counsel fees, and expenses that shall or may arise therefrom, and also deliver, or cause to be delivered up, the said check when found, to be cancelled, then this obligation to be void; otherwise to remain in full force and effect.

"Signed with our names and sealed with our seals, and dated this day of, 191.....

..... (SEAL)
Principal

..... (SEAL)
Surety

..... (SEAL)
Surety

"STATE OF CALIFORNIA }
COUNTY OF } ss

"..... and, the sureties named in the within bond, being each for himself first duly sworn, deposes and says:

"That he is a freeholder or householder within the State of California, and is worth the sum specified in the within bond, to wit, (.....) Dollars, over and above all his just debts and liabilities, exclusive of property exempt from execution.

.....
.....

"Subscribed and sworn to before me,
this day of, 191.....

"Notary Public in and for the County of
....., State of California."

Lazear Land Title:

On August 12, 1913, expenditures to the amount of \$1500 were authorized for clearing title to eighty acres of land hereinafter described, and for payment of reclamation district assess-

ments and other charges affecting these lands, and the Finance Committee was authorized to sell these lands:

South half of the Southwest Quarter, Section 20, Township 14 North, Range 4 East, M. D. M., 80 acres.

Lease of Potrero Avenue Lots:

On November 11, 1913, a lease was approved to Maurice Dillon for two years from November 1, 1913, at \$25 a month of 125 feet on Potrero avenue, described as follows:

Commencing at a point on the westerly line of Potrero avenue, distant thereon twenty-five (25) feet southerly from the southerly line of Twenty-second street; running thence westerly parallel with said southerly line of Twenty-second street one hundred (100) feet; thence at right angles southerly seventy-five (75) feet; thence at right angles westerly one hundred (100) feet to the westerly line of Hampshire street; thence southerly along said westerly line of Hampshire street fifty (50) feet; thence at right angles easterly two hundred (200) feet to the westerly line of Potrero avenue; thence northerly along said westerly line of Potrero avenue one hundred and twenty-five (125) feet to the point of beginning: being a portion of Mission Block No. 148.

Blakeley Lease:

On April 14, 1914, lease was approved to George L. Blakeley for five years at \$60 per annum, mineral rights to be reserved to the Regents, and the Regents to have the right to cancel the lease upon twelve months' notice, the lease to contain a renewal clause and to provide that all fencing improvements are to be the property of the lessee, of 440 acres in El Dorado County, described as follows:

South $\frac{1}{2}$ of the Northeast $\frac{1}{4}$, Section 10; East $\frac{1}{2}$ of the Northwest $\frac{1}{4}$, Section 10; Northwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$, Section 10; Southwest $\frac{1}{4}$ of the Northwest $\frac{1}{4}$, Section 10; Southeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$, Section 9; and the East $\frac{1}{2}$ of the Southeast $\frac{1}{4}$, Section 9; 360 acres. The Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$, Section 2; and the Southeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$, Section 2; 80 acres; T. 9 N., 11 E., M. D. M.

Morrow Lease of Lick Lands:

On March 10, 1914, lease was approved to R. F. Morrow at \$80 per annum for three years for lands of the Lick Observatory reservation already under lease to Mr. Morrow.

Kearney Vineyard Leases:

Such leases of Kearney Vineyard lands as were made during the year were reported to the Regents and confirmed, the policy followed being to rent approximately 3000 of the 5400 acres of the estate, mostly in small parcels, and mostly to dairymen and alfalfa growers.

Sale of Kearney Vineyard Figs:

On March 10 the sale of the Kearney Vineyard fig crop for 1914 to the Roeding Fig Packing Company for \$5000 was approved.

Claim Against W. A. Nevills Dropped:

On June 9, 1914, it was approved that the claim of \$1061.63 against the Estate of W. A. Nevills, an old claim of the Kearney Vineyard mostly for rent for packing boxes and drying trays, be dropped, since the estate had no property to probate.

Building Contracts Approved:

Contracts were approved by the Regents during the year 1913-14 as follows:

For the Jane K. Sather Campanile (as a charge against Mrs. Sather's gift of \$200,000 for this purpose):

<i>Company</i>	<i>Nature of Work</i>	<i>Amount</i>
Otis Elevator Company	Elevators	\$3,900
Clinton Fireproofing Company	Excavation and concrete	41,400
Raymond Granite Company	Granite	72,500
McGilvray Stone Company.	Marble	8,385
California Construction Company	Structural Steel	43,000
L. de Rome's Bronze Foundry	Ornamental Metal Work	6,836

For the construction of a sea-wall at the Scripps Institution for Biological Research:

Harry D. Trounce	Sea-wall	3,723
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Contracts for Uniforms:

On May 12, 1914, a contract for military uniforms for 1914-15 was awarded to Woodward and Schuessler at a unit cost of \$19.85.

Degrees, Scholarships, and Military Commissions:

For a complete list of the degrees conferred on December 22, 1913, and May 12, 1914, and of the recipients of scholarships and of military commissions for 1913-14, see the Commencement Programme of May, 1914.

University Medal:

On May 12, 1914, it was voted that the University Medal be conferred on Commencement Day on Miss Clotilde Grunsky of the College of Social Sciences, with honorable mention for Donald Hamilton McLaughlin of the College of Mining, and Ralph Gilbert Wadsworth of the College of Civil Engineering. The University Medal is awarded annually to the most distinguished graduate of the year.

Gifts:

For a list of gifts to the University for the year ending June 30, 1914, see pages 202 to 223.

DEAN OF THE SUMMER SESSION

BERKELEY, July 1, 1914.

To the President of the University,

SIR: The total enrollment was 2461 at the Summer Session of 1913. This does not include the Summer Session of surveying, which ought to be considered an integral part of our Summer Session activities, although it is on an independent basis financially. There were 813 men and 1648 women; 2111 came from California and the remainder from thirty-five other states and foreign countries. Over 1300 were teachers.

With the growth of the Summer Session there has come a need of a closer correlation of its courses with those of the Fall and Spring Sessions. With the assistance of the Dean of the Graduate School, Dean of the Faculties, and the Committee on Instruction, we have now adopted a very successful plan of correlation. It is, however, our strong desire not to complicate the machinery of Summer Session administration by legislating in advance of difficulties.

The movement to have the Summer Session fee abolished is, in my opinion, ill-advised. Several other Summer Sessions have found it necessary and expedient to increase the tuition. The majority of other state universities provide a subsidy for carrying on the work of the Summer Session, and our own work could be made much more efficient if we were not obliged to rely entirely on the tuition fees.

Respectfully submitted,

C. H. RIEBER,
Dean of the Summer Session.

WILMERDING SCHOOL

SAN FRANCISCO, July 1, 1914.

To the President of the University.

SIR: The so-called secondary schools of America may be classified into: (a) the free public high schools; (b) private schools that are maintained by tuition fees; (c) endowed schools. There are also the denominational schools, many of which are partly endowed, but these belong rather in the category of subsidized private schools, as distinguished from the typical endowed school. In the evolution of the American school system as part and parcel of the American democracy, the pioneer work of secondary education has been done by endowed schools. This is especially true in the field of industrial education, and in that field the trail that is being blazed by the trades school, as distinguished from the manual training school and from the technical high school, is the most difficult of all. Besides the usual problems of school administration, the trades school must also contend with social, economic and labor problems of a most perplexing sort.

No institution has attacked the trades school problem on broader lines than those that have been laid down by the Wilmerding School. Of the few trades schools to be found in America practically all deal with special conditions. For example, there are a few watchmakers' schools and a few textile schools. In the South there are several trades schools for negroes. In most of the reform schools some trades are taught, especially tailoring and shoemaking. There are institutions with trade-school features for dependent youths, such as the Williamson School and Girard College, of Philadelphia. There are a number of even-

ing supplementary schools, and several large manufacturing concerns have organized their apprentice systems in a manner approximating actual schools. Some have been established by private, and some by organized, effort in opposition to labor unions. Some are conducted on a strictly business basis for personal gain. The New York Evening Trades School, the largest of all, admits young men from seventeen to twenty-five years of age, and teaches them trades during an attendance of three and four evenings a week, for one or two years, the length of time being different for different trades.

None of these institutions is attempting to solve the trades school problem in its larger aspect, which has to do with the teaching of trades, not to the exceptional boy, but to the average, free, white, American boy, under normal conditions, who wishes to learn a trade as a part of his general education and in preparation for his life career. Such a school must maintain a reasonably close articulation with the elementary and intermediate grades, but otherwise it must have the utmost freedom to work out its destiny. Notwithstanding the progress that has been made during the fourteen years since the Wilmerding School was organized, the trades school problem is still on the frontier of industrial education. The intermediate pre-vocational school has come into existence during recent years and its permanence seems assured, but whether the trades school proper, as an institution where young men may acquire the complete mastery of a trade, will ever become a recognized part of the public school system is still a problem for the endowed school to solve.

The enrollment of the Wilmerding School for the year 1913-14 was 224 boys.

Respectfully submitted,

GEO. A. MERRILL,

Director.

DEAN OF WOMEN

BERKELEY, July 1, 1914.

To the President of the University,

SIR: I have the honor to present the following report on the progress of the women of the University for the year 1913-14.

The usual work of the office of the Dean of Women has proceeded with encouraging and responsible assistance from student advisors and student government committees. No woman has entered the University to whom the help of a senior student has not been offered and to whom the opportunity for pleasant association has not been opened. The student advisors, both graduates and seniors, have shown admirable persistence and good will in carrying on their duties. Through their work something like the spirit of University life has reached each new comer.

The women's boarding house committee has continued its work of inspection and adjustment. An attempt has been made to establish student government in the larger women's boarding houses. But it is fair to say that discontent with present living conditions for the woman who is a boarder, seethes constantly and is far from being soothed by any measure the students or this office have been able to devise. One group of women proposed this year to back a project by which a house should be built to accommodate twenty-five persons, the house to be managed by this office as a small dormitory. The hope behind this modest beginning was for a future system of small dormitories where home life and student government could best contribute to individual development. Practical obstacles have deferred the building of this first house but the plan is still cherished.

In calling attention to the many ways in which the women of the University are reaching out to help each other I am glad to mention two funds supported by them. One of these is a small loan fund administered through this office by a student organization. It is constantly in use meeting the temporary needs of self-supporting students. The other fund, administered by a student committee and this office, is replenished every year by the voluntary gifts of University women. It is somewhat larger than the first fund and sums from it may be used either as gifts or as loans. The women have shown generosity and foresight in handling both of these funds.

The good fellowship which has increased among the women in spite of their scattered life has been fostered this year by a hearty interest in sports and athletics. This interest has of necessity received almost no support from the administration either in supervision or equipment. It has been another effort of the women for each other. Five hundred and sixty women have practiced and taken part in some sport during the year. Strong organizations have grown up for basketball, tennis, fencing and boating. Spirited basket suppers in Hearst Hall have several times brought the devotees of the different sports together to consider common needs and policies. What equipment there is has been used to its utmost. The basketball court, though designed to accommodate only a game of basketball, has harboured simultaneously at least once this season, a basketball game, a scheduled class in sports, aspirants training for a field day and a fencing contest. All these athletics have been undertaken and supervised by students. The young women in charge have carried their responsibilities conscientiously. With the advice of Dr. Paroni they have watched carefully the physical welfare of all participants and they have brought their large group through the season without harm. They have also seen to it that the spirit of their sport was good, making for self-control and friendliness. More than this need hardly be said to show the appreciation with which the women will welcome the increased facilities for outdoor sports and exercise.

Physical training and sports, however, are not the only means

which the women have taken to express the fellowship of their University life. Their Partheneia celebrated for the third time this year is undoubtedly their finest expression. For the first time the masque itself, the music, the designing of costumes and the color scheme, were all the work of students. Three hundred women took part. While there were several prominent roles, the emphasis still rested as it always must, on the work of the large groups. The women have accepted the suggestion for this festival so ably initiated by my predecessor and they have made it their own. They owe a very great debt to Dr. Herbert Cory for his skill and devotion as director in the production of their work and to the student managers who carried the responsibility of organization. They also realize that the life and ultimate success of the Partheneia depends on the loyalty of each one of them to the glowing idealism of its conception.

I have reported somewhat at length on these so-called activities of the women of the University, because I believe that the average college woman finds her academic life strengthened by association with her fellow students, by the consideration of common aims and standards. Without dormitories and with fifty per cent of our women living in their own homes we tend to great decentralization. Therefore emphasis on wholesome interests which draw the women to greater unity is necessary.

During the year the five University committees of which I am a member have absorbed the usual time and interest. None, however, has offered such fruitful discussion as that on Home Economics. While it is not in my province to report for this committee or to interpret its policies, its work is of such importance to the women of the University that I feel justified in commenting on one or two points which have arisen.

The recognized subject matter of Home Economics falls under three heads, namely: Food, Clothing, and Shelter, each treated in its scientific, economic, aesthetic, historic and ethical aspects. Such a field is surely broad enough for a University curriculum. There is, however, a demand throughout the State for teachers of Home Economics who can direct all three divisions of the subject in the secondary schools. Teaching is still the

avenue taken by the majority of University women for self support, not necessarily from choice but because their training and social and financial advantage point that way. Therefore it is the tendency to consider the training of teachers the end and aim of a school of Home Economics. Out of this the danger arises that the possibilities of Home Economics will be narrowed. Impatience to meet the immediate demand for teachers will obviously result in too early specialization through the attempt of the individual student to cover the whole field. It may mean that fundamental courses in science, art or economics will be slighted or given in a diluted form, that technical work of an elementary sort is emphasized and that young women are turned out to teach with technique rather than with abundant resources in knowledge of the basic subjects.

Year after year as the number of self-supporting women increases, it is a source of regret that so many college women still aim to become teachers. Teaching is admittedly one of the great professions, but little respect is paid it by filling its ranks with young women who are perhaps there only because they find there the best salaries for a possibly short period of self-support. The University is the source of the stimulus and training which will open to women professions other than teaching. Opportunities are growing in the fields of women's admitted ability and interest, and in no field are the possibilities at present so many as in that covered by a fully developed school of Home Economics.

But the average layman, man or woman, has failed to see how far-reaching professionally are the three divisions of Home Economics. Food suggests practical cooking rather than dietetics or institutional management. Clothing suggests dressmaking rather than designing costumes or testing textiles, and Shelter suggests house cleaning, rather than the structure, sanitation or decoration of the house. Its professional possibilities are recognized and given place in graduate work. Home Economics is in danger of becoming merely the training of technical teachers for the secondary schools.

Aside from the wider professional outlook there are possi-

bilities of improvement through Home Economics, in the four years' undergraduate course. It may be said roughly that each division of the subject falls into three stages in the process of education. In studying Food the student learns (1) cooking, (2) nutrition, (3) professional work; in studying Clothing (1) sewing, (2) how to dress, (3) professional work; in studying Shelter (specializing on the aesthetic side), (1) drawing, (2) decoration, (3) professional work. In each case the first stage, the elementary technical work, should be a requirement for entrance to the University. The third stage, professional work, should be undertaken in the graduate school. Thus the second stage, which represents in each case the broadest training in the underlying principles of science, art and economics, is given over to the academic course.

Too many of our women who have no special gift or inclination fall aimlessly into the curriculum of the colleges of social or natural sciences. They do not see the relation of academic work to the average life of the average woman. Without diluting fundamental work or curtailing the opportunity for culture, Home Economics may strengthen this relation and become the focus of undergraduate work. This strengthening has already begun through the co-operation of various departments of the University wherein courses prerequisite or related to study in Home Economics are given. The attainment of a degree in such course will not mean necessarily vocational proficiency or technique but it should mean sound training for whatever career may be undertaken, be it home-making, teaching or other professional work.

Thus our hoped for school of Home Economics should accomplish three desirable ends. It should stimulate elementary technical training in the secondary schools. It should help to focus the academic course for many women and dissipate the intellectual haze which is said to lie between the college woman and her probable life in the world. It should open many valuable opportunities for professional work. There are objections to this suggested plan of organization on the ground that the course is too long and that the undergraduate work is neither

vocational nor technical in its aim. But I am convinced that in time its influence will be recognized in the intelligent work of its graduate as home-makers, teachers, managers of institutions, designers, sanitary inspectors, dietetions, and efficient workers in many new services revealed by sound training.

Respectfully submitted,

LUCY WARD STEBBINS.

Dean of Women.

CALIFORNIA MUSEUM OF VERTEBRATE
ZOOLOGY*

BERKELEY, July 1, 1914.

To the President of the University,

SIR: The sixth year of existence of the California Museum of Vertebrate Zoology has been attended by undiminished activity along the lines of work originally prescribed. There have been no changes in staff personnel, and the only departures from our last year's program have arisen through the completion of certain set tasks and the undertaking of new ones of similar nature.

As heretofore, the support of Museum work has depended almost altogether upon private benefaction. For general maintenance, the sum of \$7080.00 has been received from the founder, Miss Annie M. Alexander. A friend of the University, whose name is withheld, has contributed \$1380.00 for the purpose of paying the salary of one of the staff who is engaged upon economic studies. Associate Justice Fred W. Henshaw, together with certain of his friends interested in game conservation, contributed \$225 for the expenses of a field investigation of California's breeding duck population. From an anonymous source, \$60 was received for the purchase of lantern slides to use in lectures on conservation. From the same source, \$24.25 was received for the purpose of destroying English sparrows on the campus in experiments to determine effective means of combatting this nuisance.

As in previous years, field-work has been accorded as large a measure of attention as an equitable division of our resources permitted. The belief holds, that only through long-continued and exhaustive field investigations, with resulting accumulations of specimens and appertaining data, can we hope to gain adequate foundation for scientific and economic generalizations of importance concerning the native fauna of the State.

* A list of gifts presented to the California Museum of Vertebrate Zoology during the year will be found on page 220.

Field-work was continued during the three summer months of 1913 in the coast district north from San Francisco Bay. A party of four under the leadership of Dr. Taylor covered the immediate coastal belt north to Mendocino City, and then the inner coast ranges from South Yolla Bolly Mountain to Mount Sanhedrin. The director, with Mr. Holden as assistant, worked during October in the central Sierra Nevada, in the vicinity of Cisco. In March, the director with two companions carried on field-work on the Mohave Desert in the vicinity of Barstow and Victorville. In May and June Dr. Bryant, with one student-assistant, carried on a field study of game conditions in the interior valleys, from Merced to the Oregon line. In addition to these sources of field data, several outside persons generously donated to the Museum part or all of the results of their independently prosecuted collecting, notably Mr. Charles L. Camp and Dr. Francis B. Sumner. In this connection, the appended list of gifts to the Museum of specimens during the year just ended, should be consulted.

There have been 168 accessions during the year. The largest from any one source, no. 599, from the expedition working in the summer of 1913 in the coast district north of San Francisco Bay, consisted of 2151 specimens. A total of 3263 specimens was catalogued during the past year.

The total number of catalogued specimens now (June 30, 1914) contained in the Museum is 52134, distributed among the four departments as follows: mammals 20902, birds 24589, reptiles and amphibians 5361, sets of birds' eggs 1382.

It is keenly realized that collections of whatever kind are valueless except as used as the basis of disseminated knowledge. To meet the obligation, of thus getting adequate returns from the Museum's capital, our staff not only avails *itself* of the opportunities afforded for research, but extends to workers elsewhere every facility for making use of our material. Loans to the number of 42 have been made to 28 different institutions and investigators. These loans involved a total of 1317 specimens, of which 222 went to mammalogists and ornithologists in Washington City.

Nineteen papers by staff members were published during the year, consisting of 674 printed pages, 17 plates, and 28 text figures. In addition, 9 signed reviews were contributed. Thirteen papers, based wholly or in part upon Museum material, were published by persons outside of our staff.

Museum staff members participated in University teaching, specifically, in two courses in zoology and one in palaeontology. In this connection twenty-three lectures were given. In addition, thirty-two popular lectures were delivered during the year outside of the University.

Research now in advanced progress deals with the following subjects: game birds of California, with consideration of the problems of game conservation (by Doctors Grinnell and Bryant); food of ducks in California (by Doctor Bryant); the status of the beavers of western America, with special reference to the processes in their speciation (by Doctor Taylor); distribution of birds in California (by Doctor Grinnell). For list of research problems carried to completion during the past year, see list of titles in the appended bibliography under the above three names.

Not to exceed one-half of the time of the Museum staff members is devoted to research. Among other activities which demand attention are: identification of specimens submitted by other individuals or institutions; answering numerous letters of enquiry concerning birds, mammals and reptiles; field-work; teaching; lecturing; editing the ornithological magazine, *The Condor*; participating in various ways in the movement to conserve California's wild-life resources; cataloguing of specimens; preparation of specimens sent in to the Museum in fresh condition; arranging the collections; fumigating cases at regular intervals.

In all these ways we are endeavoring to meet what we believe to be real needs: The California Museum of Vertebrate Zoology has a distinct function to perform both as a University department, and in relation to the State at large.

Respectfully submitted,

J. GRINNELL,
Director.

GIFTS TO THE UNIVERSITY*

GENERAL LIST†

Alexander, Miss Annie M., support for the California Museum of Vertebrate Zoology, at a rate which has constantly exceeded \$7000 per annum. It was reported to the Regents on September 9, 1913, that Miss Alexander's gift for the half-year ending June 30, 1913, was \$5,453.97; it was reported on April 14 that her gift for the half-year ending December 31, 1913, was \$3540.

Alumnae of the University: (Annis Ostrander, Irene Alexander, Edith Hunt, Naomi Fiewiger, Irene Ball, Emily Gray, Jennie Hosmer, Mary Keyes, Mignon Harmon, Mrs. Lucia Mills Devore, Hazel Land, and Phoebe Jane Matthews), \$125 to maintain a scholarship for 1914-15.

Alumna of 1904, \$500 to maintain for four years a scholarship yielding \$125 a year, this gift being in repayment of the Levi Strauss Scholarship held by the donor from 1900 to 1904. The donor wrote: "I should very much prefer that my name should not be attached to it."

Atchison, Topeka and Santa Fe Railroad, free and reduced rate transportation to members of the faculty in furtherance of the work of the University.

Bacon Memorial Library Committee, something over 1200 bound volumes and several hundred pamphlets, to be known as the Thomas Rutherford Bacon Memorial Library. These volumes constitute the personal library of the former Professor of Modern European History. The letter of gift, from Mr. Duncan McDuffie, '99, said:

"While a large proportion of these books is no doubt already represented in the University Library, yet the bulk of the collection consists of standard works in history and literature for which there is very great and very constant demand on the part of the students, and for the possession of duplicates of which there is, therefore, very real need. We do not wish to make any request that the books be separately shelved nor that the Library be required to retain such

* Compiled by the Secretary of the Regents from the official records.

† For gifts to the University Library see pp. 86 and 87.

duplicates as it cannot use to advantage. Professor Bacon's rich and various personality, his contagious enthusiasm for the things of the spirit, and his warm kindness of friendship endeared him to passing generations of students for a quarter of a century of the life of the University. We would ask that in commemoration of his life and his loyal service to the University, these volumes be received by the University and individually inscribed as constituting the Thomas Rutherford Bacon Memorial Library."

Bonnheim, Albert, \$250 for the Bonnheim Essay and Discussion Prizes.

Bradley, F. W. (President of the Alaska-Treadwell Gold Mining Company and the Bunker Hill and Sullivan Lead Mining Company of Idaho), an offer of a gift of \$1000 per annum for at least ten years for the establishment of a fund to be known as the Mining Students' Loan Fund, for the benefit of students of mining and metallurgy, under the following conditions:

"1. That the loan fund shall be available to students of Mining and Metallurgy in the College of Mining, at Berkeley, who may need pecuniary assistance during their college career, and who show through their past record and current University records promise of future usefulness to the State; preference being given in general to upper classmen, although in exceptional cases the benefits may be extended to members of the lower classes.

"2. That the fund shall be handled by the Board of Regents, and that loans be granted to students in the College of Mining, upon the recommendation of the Professor of Mining and Metallurgy, with the approval of the President of the University; it being understood that the Professor of Mining and Metallurgy and the President of the University shall have full charge of awarding the loans, and of the selection of the beneficiaries thereof, and shall have the right to impose such conditions on the loaning of the fund and the awarding of the same as may seem to them right and proper in any particular case.

"3. That, other things being equal, preference be given to students who have not previously received assistance; and that, as a general rule, no student shall borrow from this or any other fund, or combination of funds, more than \$200.00 in any one year.

"4. At the time of the receipt of any loan, each borrower shall execute a promissory note, payable on or before five years from the date thereof, to the order of the Board of Regents, with interest from the date at which the borrower graduates or withdraws from the University; such interest to be at the rate of six (6) per cent per annum until paid, interest payable quarterly.

"5. That the Board of Regents be requested to keep a separate account to be known as the 'Mining Student Loan Fund,' which shall be credited with the moneys paid into the fund from time to time, and debited with the amounts loaned.

"6. If at any time in the future, circumstances seem to justify alterations in the conditions of this Loan Fund, such alterations may be made by the Board of Regents, with the approval of F. W. Bradley or his heirs and assigns; provided, that no alterations be made which shall violate the spirit of the fund, which is here stated to be for the aid of such students of Mining and Metallurgy in the College of Mining at the University of California, Berkeley, whose records and abilities seem to promise that they will be of material service in the development of the mining resources of the State."

Cebrian, J. C., 417 volumes as an addition to the valuable collections in Spanish literature, history, and art heretofore given to the University by Mr. Cebrian.

Class of 1876, an offer of a sun-dial.

Class of 1914, a drinking-fountain, to be built northeast of the Sather Gateway from plans designed by Irving Morrow and approved by the Supervising Architect, the cost to be about \$600.

Crocker, Regent William H., \$5800 for an expedition from the Lick Observatory, headed by Director W. W. Campbell, to observe in Russia a total eclipse of the sun, leave of absence being granted to Director Campbell and Astronomer Heber D. Curtis from June 10 to October 10, 1914, for the purposes of the expedition.

Cushing, O. K., \$100 as the Cushing Prize for the best essay written by a student in the Department of Law in Stanford University or in the School of Jurisprudence of the University of California during 1914 upon some subject connected with the law of procedure.

Dante Alighieri Society of San Francisco, an offer of \$40 per annum as a prize to be awarded to the best student in the University of California of the Italian language and literature.

Denver Rock Drill Manufacturing Company of Denver, Colorado, a No. 1 "PDA" Clark Air Meter, complete, with Sight Feed Lubricator No. 220.

Dohrmann, Regent F. W., subscription of \$250 toward the expense of the women's swimming pool adjoining Hearst Hall.

Du Bois, Estate of Miss Helen J., \$5016.52 as an endowment for a scholarship. The will of Miss Du Bois, in which she bequeathed one-third of her estate to the University, made the following provision: "The income to be used by the Regents to pay the expenses, while under-

taking courses of study in the University, of such worthy individuals as could, by reason of financial disability, not easily obtain an education in another way. The details of management and apportionment of such funds, I leave to the direction of the Regents of said University." The Regents, on October 14, 1913, voted to administer this fund in accordance with the will of Miss Du Bois.

Electric Manufacturing Company of New York, a galvanometer.

Ferndale Dairymen's Association, \$500 per annum, beginning with 1913-14, as a contribution toward the cost of having an agricultural advisor for Humboldt County.

Foote, George L., \$100 for the purchase of music for the Department of Music.

Friend of the University, A, \$350 as a contribution toward the expense of the services of Miss Mayde Hatch as Assistant in Physical Culture in training the dancers for the Partheneia.

Friend of the University, A, \$750 for the California Museum of Vertebrate Zoology.

Friend of the University, A, \$102 to be applied toward the expense of a color plate illustrating a paper in Protozoology, written by Robert G. Sharp, and then in course of publication in the Zoology series of the University.

Friend, A, use for another year—1913-14—without interest, of \$1000 as a special Senior Class Loan Fund (first made available for 1911-12). Dr. Emma Sutro Merritt is Trustee for this fund.

Glasecock, Mrs. Mary W., the law library, of some 800 volumes, of her husband, John R. Glasecock, '65—to be placed in the law library of the School of Jurisprudence.

Hambrook, Mrs. Edith P., a six-thousand-dollar six per cent bond of the Realty Union of San Francisco, as endowment for the Forestus Phelps Memorial Loan Fund; the income to be paid to Mrs. Hambrook during her life and in the event of her death before that of her husband, then the income to be paid to her husband, Thomas Hambrook, for the duration of his life, and after the death of both the income to be used for the purposes of the Forestus Phelps Memorial Loan Fund.

Hearst, Regent Phoebe Apperson, \$10,943.77 for the improvement of the grounds around the Hearst Memorial Mining Building, and valuable additions to the equipment of the building.

Various gifts for the Mining Museum.

A contribution of \$1000 per annum each toward the salaries of the Professor of Architecture as Supervising Architect, and the Professor of Mining.

Additions to the vast collections which she has given in the past to constitute the Museum of Anthropology.

One thousand six hundred and eighty dollars for maintenance of the Museum of Anthropology.

Maintenance of the Hearst Scholarships for 1913-14, at the rate of \$2400 per annum.

A subscription of \$2750 toward the swimming pool for women students adjoining Hearst Hall.

One thousand five hundred dollars for stiffening the floors of Hearst Hall. While the building was already perfectly safe from the point of view of structural strength, this work was deemed advantageous toward lengthening the life of the building.

A folio Hogarth, published in London in 1822 from the original plates as retouched by James Heath, R.A. This folio is an extensive collection of Hogarth's works and contains his portrait and 114 pages of plates.

A rare and valuable book, the Ffoulke Collection of Tapestries, New York, privately printed in 1913.

Hearst, William Randolph, repairs and improvements for the Greek Theatre, of which structure Mr. Hearst was himself the donor.

Hellman, Regent Isaias W., \$2500 in payment for a course of lectures to be given at the University by Dr. Hermann Paasche, First Vice-President of the German Reichstag, on the governmental institutions of Germany.

Henshaw, Associate Justice F. W., and certain of his friends, \$225 to defray the expense of an expedition from the California Museum of Vertebrate Zoology to the breeding-grounds of ducks in Northern California, the work being in the interest of the conservation of the State's game resources.

Humboldt County, \$1000 per annum, beginning with 1913-14, as a contribution toward the cost of having an agricultural advisor for Humboldt County.

Jackson, Mathilde (Mattie) Hermann, a bequest (quoting from the will "to the Hospital of the University of California, situated at Berkeley—all money that I have out on interest and which is secured by mortgages—to be used for the purpose of research and of the cure and remedy of throat, catarrh, and lung diseases.")

Knights of St. Patrick, \$100 for the purchase of Irish books for the University Library, this being their fourth annual contribution for like amount and for like purpose.

Legallet, Mr., Vice-President of the *Fédération de l'Alliance Française*, \$60 to provide the honorarium for a lecture in French given at the University by M. André Bellessort in 1914.

Luding, Mrs. Rose, two paintings by Sophie Wolff, formerly Assistant in German in the University, now in her memory presented to the University by her mother.

Marine Biological Association of San Diego, a deed for the real property of the Scripps Institution for Biological Research, in San Diego, described as follows:

Pueblo Lot 1298 of the Pueblo Lands of the City of San Diego, according to official map of said Pueblo Lands by James Pascoe, excepting and reserving therefrom a strip of land one hundred (100) feet wide through Pueblo Lot number 1298 as a right of way for the Boulevard extending from La Jolla Park to the Torrey Pines in said City.

Mills, Ogden, an offer to maintain, at an expense of \$8250 per annum, for 1915 and 1916, the Mills Expedition from the Lick Observatory to the Southern Hemisphere.

Mills, Ogden, \$6000 for the work of the D. O. Mills Expedition from the Lick Observatory to the Southern Hemisphere.

Napa Seminary Club, \$100 as an addition to the Napa Seminary Club Loan Fund.

Native Sons of the Golden West, support of Fellowships in Pacific Coast History, their gift for this purpose for the year ending June 30, 1914, being \$3000.

Northwestern Pacific Railroad Company, free transportation for the ministers in attendance upon "Ministers' Week" at the University Farm, and other aid and courtesy to the University.

Norton Company of Worcester, Massachusetts, a large mounted frame showing the raw material in the several stages of manufacture of abrasive wheels and Alundum and Crystolon sharpening tools of various sorts.

Pacific Coast Gas Association, \$2700 for instruction in Gas Engineering during 1913-14.

Palaeontological Excavation Fund: On April 14, 1914, it was reported to the Regents that approximately \$2000 worth of palaeontological specimens, containing much rare material, not obtainable through purchase, had been acquired by the University through exchange for specimens

obtained in excavations at the Rancho La Brea, the value of this exchange material being approximately the same as the total gifts made by various friends of the University for undertaking the excavations in the asphalt beds near Los Angeles.

Porter, Dr. Charles B., declination of salary as Assistant in Dental Porelain. On September 9 it was reported to the Board that Dr. Porter in declining compensation for this service had written: "Such service as I have been able to render has been an expression of loyalty which would lose force completely should a salary attach, and therefore, I beg to continue a volunteer, and let any available funds be used for equipment or to develop greater efficiency." These services were accepted by the Regents with a vote that suitable acknowledgment be made of Dr. Porter's generous attitude. By recommendation of the Finance Committee on January 13, 1914, his gift was added to the Endowment Fund of the Dental Department.

Power and Mining Machinery Company of Cudahy, Wisconsin, a working-size laboratory model of the McCully Gyratory Ore Crusher.

San Joaquin District, California Federation of Women's Clubs, \$124, to be used as a loan fund, to be known as the San Joaquin Women's Clubs Loan Fund. The letter of gift of November 6, 1913, from Mrs. F. E. Osterhout, Chairman of the Education Committee, stated:

"It is desired by the San Joaquin District of the Federation that the fund be used in such a way as to assist women students of the University, preference being given those who are in the last year of their undergraduate course. We suggest that the fund be handled by a Committee of three persons including the Dean of Women, the President of the University, and the President of the Associated Women Students, it being understood that said Committee have full charge of the fund, the selection of beneficiaries therefor, and the right to impose such conditions on the loan of said fund as may seem to them right and proper under the circumstances of any particular case. We further suggest that an interest charge of six per cent per annum be made to begin from the time of the applicant's withdrawal or graduation from the University."

Santa Fé Railway Company, free transportation for the ministers in attendance upon "Ministers' Week" at the University Farm, and other aid and courtesy to the University.

Scripps, Miss Ellen B., the following sums for the Scripps Institution for Biological Research:

Maintenance	\$13,500
Publications	1,000
Library	9,500
Buildings and improvements	16,500
	<hr/>
	\$40,500

Scripps, E. W., \$1500 toward the maintenance of the Scripps Institution for Biological Research.

Sherman, Estate of Regent Minna E., an out-of-print Holstein Herd book and a Dutch Friesian Herd book.

Slack, Charles W., nine sets of leading cases in law, containing twenty-three volumes.

Snell Seminary Alumnae Association, \$200 to endow the Snell Seminary Memorial Loan Fund.

Southern Pacific Company, free transportation for ministers in attendance upon "Ministers' Week" at the University Farm, and other aid and courtesy to the University.

Strauss, Levi, and Company, support of the Levi Strauss Scholarships at the rate of \$3500 per annum.

Taussig, Trustees for Hugo A., \$10,000 to endow the Bertha Henicke Taussig Memorial Scholarship. The Finance Committee reported as follows in regard to this gift:

"We have the pleasure of recommending acceptance by the University of the gift of \$10,000 offered in behalf of the late Hugo A. Taussig of San Francisco by his trustees, Mrs. Hugo A. Taussig, Mrs. Lewis W. Allen, Dr. Nellie L. Treat, and Dr. George E. Ebright, this trust fund to be administered by the Regents as endowment for the Bertha Henicke Taussig memorial scholarship for women students in art, architecture, or literature, always in accord with the directions set forth in the following letter of May 26, 1914, from Mr. Taussig's Trustees:

"Pursuant to a provision in the will of the late Hugo A. Taussig of San Francisco, California, there has come into the possession of the undersigned, as trustees, certain securities aggregating in market value ten thousand dollars, or thereabouts, a list of which is herewith presented.

The provision of the will referred to is as follows:

"I hereby give ten thousand dollars (\$10,000) to my wife, Elsie W. Taussig, Mrs. Maude Allen, wife of Dr. Lewis W. Allen, Miss Nellie L. Treat, and Dr. George E. Ebright, in trust, nevertheless, for the purpose of establishing a scholarship for women in some University, or to be used in any other way for the higher education of women. I make this bequest in memory of my wife, the late Bertha Henicke Taussig."

"In the exercise of the authority so conferred, and in discharge of our duty under the trust so imposed, we have decided that the fund shall be used to establish a scholarship for women at the Uni-

versity of California at Berkeley, California, and accordingly we do hereby assign, transfer and deliver to you the said property, for the purpose of your establishing a scholarship for women at the University of California, the said scholarship to be known as the Bertha Henicke Taussig Memorial Scholarship. You are to have plenary power in handling said securities and funds.

“ ‘Bertha Henicke Taussig was an artist and greatly interested in the higher education of women. We therefore hereby provide and prescribe that, under the circumstances and in view of the artistic interests of Bertha Henicke Taussig, your honorable Board in awarding the scholarship at any time, award the same to women students in the following subjects, you giving preference to the following order:

“ ‘First. Students in art.

“ ‘Second. Students in architecture.

“ ‘Third. Students in literature.

“ ‘The scholarship may be awarded, in your discretion, to a resident student or awarded as a traveling scholarship.

“ ‘Please indicate to us your acceptance.’

“ ‘We recommend, further, that in accepting this trust the Regents express their high appreciation of its generous purposes.’”

The Board then adopted the following resolutions:

“RESOLVED, That the Board of Regents of the University of California do hereby accept unconditionally the benefaction from the trustees under the will of the late Hugo A. Taussig, the same to be administered as indicated in the letter of transmittal from said trustees to the Board of Regents, and

“RESOLVED, further, that a special vote of thanks of the Board of Regents be and is hereby extended to said trustees, for their selection of the University of California as the object of the benefaction.”

University Hospital: On January 13, 1914, President Wheeler reported that subscriptions had been made for the erection of a teaching hospital for the Medical Department of the University, the subscribers being as follows:

Members of the Crocker family, in memory of George

Crocker	\$150,000
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(The individual donors of this \$150,000 are as follows:

Mrs. Harriet C. Alexander, \$50,000; William H. Crocker, \$50,000; Charles Templeton Crocker, \$25,000; Mrs. Malcolm Whitman, \$25,000).

John M. Keith, in memory of his wife	150,000
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A friend of the Children's Department	125,000
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George Whittell, Jr.	25,000
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Gordon Blanding	25,000
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Mrs. F. W. Sharon	25,000
A. B. Spreckels	10,000
Mrs. Elise A. Drexler	10,000
Mrs. James Moffitt	10,000
Selah Chamberlain	10,000
C. F. Kohl	10,000
W. B. Bourn	10,000
Mrs. Jeanette A. Jordan	5,000
James Irvine	5,000
James K. Moffitt	5,000
A Friend of the University	5,000
P. E. Bowles	5,000
Herbert and Mortimer Fleishhacker	5,000
John Martin	2,500
Adolfo Stahl	2,500
George H. Roos, Leon L. Roos, and Robert A. Roos, in mem- ory of their father, Adolphe Roos	2,500
Antoine Borel and Company	2,500
D. Ghirardelli Company	2,000
D. Ghirardelli	1,500
Edward Coleman	1,250
Morris Meyerfeld, Jr.	1,000
Samuel Bissinger	1,000
James J. Mack	1,000
Wallace M. Alexander	1,000
A. Schilling	1,000
Stephen T. Mather	1,000
Mrs. E. L. Dow	1,000
Mrs. Hattie Simon	1,000
Wm. Fries	500
M. J. Fontana	500
Sigmund Schwabacher	500
Sanfora Sachs	500
I. Strassburger	500
Rosenberg Brothers Company	500

\$615,750

On January 13, 1914, President Wheeler reported the names of the donors of the fund of \$615,750 subscribed for the erection of the University Hospital. The chairman, at this meeting of January 13, expressed the gratitude of the Board for the beneficence of the donors to the University Hospital Building Fund, and the appreciation

of the Board for the services rendered to the University by the members of the Board whose efforts had resulted in the gathering of this building fund.

Warren, Miss E. Marion, \$17,109.06 to endow four scholarships, two for men (preferably men enrolled in the College of Commerce) to be known as the John Dolbeer Scholarships, and two for women, to be known as the Bertha Dolbeer Scholarships. It is intended that \$200 per annum shall be the stipend of each of these scholarships. It was voted that all surplus income of the endowment above \$800 per annum be added to the principal until the principal accumulates to a total of \$20,000.

Weill, Raphael, \$150 as honorarium for F. Balndensperger, Professor of Comparative Literature in the Sorbonne, who delivered two lectures in French before the University on February 13 and 14, 1914.

Wenzell, Professor William T., a box of so-called "Plucker" tubes for exhibiting spectra of the contained gases at low pressure when excited by electrical discharge.

Western Pacific Railway Company, free transportation for the ministers in attendance upon "Ministers' Week" at the University Farm, and other aid and courtesy to the University.

Westfall, Estate of Miss Mary J., a valuable collection of seaweeds.

* See also the list of gifts in the Statement of Income for 1913-14.

DEPARTMENTAL LIST

GIFTS TO THE HERBARIUM, BOTANICAL MUSEUM, AND
BOTANICAL GARDEN

TO THE HERBARIUM

- Babcock, Professor E. B., University of California, 4 sheets of cultivated plants from Goleta.
- Blake, Mrs. Anson S., Berkeley, 5 sheets of phaenogams.
- Brandeggee, Mr. and Mrs. T. S., University of California, 1120 sheets of phaenogams; 14 photographs of vegetation on San Pedro Martir, Lower California, taken by Townsend; 108 sheets from the Heribaut Collection purchased for the University; 100 duplicates of types. See also under Dr. C. A. Purpus.
- Burlew, Fred E., Los Angeles, 2 photographs of oak trees illustrating unusual fusion of branches.
- California State Board of Forestry, courtesy of Mr. G. Morris Homans, 70 sheets of Eucalyptus.
- Clausen, Roy E., University of California, 2 sheets of *Gleosporium Limet ticolum*, a new pathogenic fungus of the lime.
- Condit, I. J., University of California, 2 sheets of *Nigellia* and *Sorbus*.
- Congdon, Mrs. J. W., Waterman, Washington, 1 sheet of a rare orchid.
- Conger, Miss Kate E., Santa Barbara, 4 sheets of *Palmerella debilis* var. *serrata* from a creek near Santa Barbara; 1 sheet of *Ornithogalum nutans*.
- Eastwood, Miss Alice, California Academy of Sciences, 2 sheets of phaenogams.
- French, Miss M. E., '03, Lick Observatory, 33 sheets of Mount Hamilton plants and 1 sheet of *Oenothera* from Hawaii.
- Gardner, Professor N. L., University of California, 1025 specimens of algae for herbarium use.
- Geis, Miss Helen D., Los Angeles, 53 sheets of phaenogams from the Sierra Nevada Mountains.
- Hall, Professor and Mrs. H. M., University of California, 441 sheets of plants from the North Coast Ranges, 18 sheets from the Yosemite National Park, and 162 sheets of miscellaneous phaenogams.

- Hart, F. J., Los Angeles, 2 sheets of phaenogams.
- Hewitt, L., Alameda, 1 sheet of Tulip.
- Howland, Mrs. H. I., Delano, 610 beautifully mounted specimens of marine algae from the collection of Miss Mary J. Westfall.
- Jepson, Professor W. L., University of California, 10 sheets of phaenogams; 8 sheets of phaenogams collected by S. B. Parish.
- Jones, Miss K. D., University of California, 1 sheet of *Eucalyptus globulus*, unusual form; 4 sheets of coniferous plants.
- Kennedy, Professor P. B., University of California, 9 sheets of *Cicuta vagans* and 1 sheet of *Trifolium Bolanderi*.
- Kuhn, Miss R., Sonoma, 1 sheet of *Lycium vulgare* and 3 sheets of *Viburnum ellipticum*; 1 fern.
- Manning, Mrs. M. H., Fort Bidwell, 1 packet fruits of *Prunus oregana*.
- Parish, S. B., San Bernardino, 32 sheets of phaenogams.
- Phillipson, W. M., Monrovia, 20 sheets of grasses.
- Purdy, Carl, Ukiah, 65 sheets of ornamental plants grown at The Terraces, Mendocino County.
- Purpus, Dr. C. A., University of California, 750 sheets of Mexican plants, determined by T. S. Brandegee.
- Reed, Miss Minnie, Los Angeles, specimen of *Nostoc Parmelioides*.
- Reed, Miss Ramona, '13, San Luis Obispo, 1 sheet of *Eriogonum*.
- Saunders, J. T., '12, Ventura, 1 sheet of *Nicotiana Bigelovii*.
- Setchell, Professor W. A., University of California, 5 sheets of *Rumex* from Farallone City.
- Smith, Mrs. James B., Burlingame, 98 sheets of ornamental plants grown at Hillsborough.
- Sonne, C. F., San Francisco, an herbarium of 7778 sheets, all but 808 mounted. This herbarium was deposited with the department in April, 1913, and became the property of the University on the death of Mr. Sonne, in accordance with his desires as expressed in a letter dated April 2, 1913.
- Sumner, F. B., University of California, 3 teratological specimens of roses.
- Tracy, J. P., '03, Eureka, 453 sheets for exchanges and 530 sheets for the herbarium.
- University Farm, Davis, courtesy of C. J. Wight, 100 sheets of grasses for identification and herbarium use.

U. S. War Department, Bureau of Government Laboratories, Manila, P. I., courtesy of T. E. Borden, Seabright, Santa Cruz County, 449 sheets of phaenogams collected at Lamao, Bataan Province, Luzon, P. I.

Valentien, A. R., San Diego, 1 sheet of *Lamium amplexicaule*.

Walker, Miss Harriet A., University of California, 75 sheets for the Horticultural Herbarium, 165 sheets of horticultural plants for exchange, and 56 sheets of *Cirsium Walkerianum*, a rare thistle.

(Total number of specimens received by gift from July 1, 1913, to June 30, 1914, for the herbarium, 14,346.)

TO THE BOTANICAL MUSEUM

Arnold Arboretum, Boston, Mass., 37 pine cones (through Professor W. L. Jepson).

Blake, Mrs. C. T., Berkeley, 1 cone of *Pinus Coulteri* (through Professor W. L. Jepson).

Bolster, F. H., Grass Valley, 3 specimens of *Pholiota*.

Brandeggee, Mrs. Katherine, University of California, 1 specimen of *Tricholoma*.

Brown, V. S., '15, University of California, 60 specimens of fungi; also 18 specimens of fungi (with H. S. Yates).

Compton, Mr., Santa Barbara, seeds gathered at Gillespie Place, Montecito.

Gardner, Professor N. L., University of California, 10 specimens of fungi.

Gianelli, G. B., Stockton, 1 specimen of fungi (*Amanita muscaria*).

Gilkey, Miss Helen, University of California, 1 specimen of *Amanitopsis*.

Grice, Clayton R., Inglewood, 1 specimen of abnormal quince.

Grinnell, Director Joseph, University of California, 2 collections of *Vaccinium ovatum* berries.

Hall, Professor H. M., University of California, 4 specimens of pine cones from Massachusetts, 7 samples of rice in different stages of preparation, and a set of cotton bolls from Georgia.

Jepson, Professor W. L., University of California, 1 specimen of insect-stung Juniper collected by Mrs. Blanche Trask; 11 specimens of bark from Sherwood and 6 specimens of wood, collected by W. C. Matthews at Fort Bragg; 5 nuts of *Canarium ovatum* from Philippine Islands; root of *Heracleum lanatum* from Oakland Hills; 1 cone of *Pinus Coulteri* from Zaca Mountains, sent by Mrs. C. T. Blake; 37 pine cones from Arnold Arboretum, Boston, Mass.

Kennedy, Professor P. B., University of California, 1 root of *Cicuta vagans* and 7 roots of *Cicuta Sonnei*.

Lee, H. A., San Jose, 5 specimens of fungi on apple at San Jose.

McDuffie, Duncan, '99, Berkeley, 1 specimen of *Lepiota naucina*.

Meinecke, Dr. E. P., Forest Service, San Francisco, 1 specimen of *Sparassia crispa* from Humboldt County, collected by J. D. Coffman and F. A. Graham.

Reed, Miss R. R., '13, Los Angeles, 1 specimen of *Agaricus*.

Setchell, Professor W. A., University of California, 19 specimens of fungi.

Smith, L. S., '15, Berkeley, 93 specimens of fungi.

Southworth, Dr. S. S., Bolinas, 1 specimen of *Agaricus*.

Thomas, W. W., '14, Berkeley, 2 specimens of fungi.

Yates, H. S., University of California, 123 specimens of fungi; also 18 specimens of fungi (with V. S. Brown).

(Total number of specimens received by gift from July 1, 1913, to June 30, 1914, for the Botanical Museum, 456.)

FOR THE BOTANICAL GARDEN

Bacharach, A. H., Glenn County Nursery Co., Willows, live plants of *Nepeta glechoma*.

Brandeggee, Mrs. K., University of California, 1 packet each of seed of *Aster tortifolius*, *Godetia arcuata*, *Holacantha Emoryi*, *Godetia magellanica* and *Oenothera americana*; seeds of *Oenothera xylocarpa*, *Salazaria mexicana*, and *Clarkia Xantiana*.

Davis, O. S., Selma, packet of clover seed for experimentation purposes.

East, E. M., Bussey Institution, Cambridge, Mass., 1 packet of seed of *Nicotiana suaveolens*.

Eastwood, Miss Alice, San Francisco, seeds of *Cupressus Goveniana*, *C. pygmaea*, *C. macrocarpa*, and *C. guadalupensis*.

Flint, Mrs. E. P., Rockville, Conn., bulb from Zululand, South Africa.

Goddard, Dr. P. E., American Museum of Natural History, New York City, 1 packet of tobacco seed, supposed to be *Nicotiana quadrivalvis* of the Gros Ventre Indians.

Goodspeed, Dr. T. H., University of California, 11 plants of *Trillium grandiflorum* from Sawyer, Michigan.

Hall, Professor H. M., University of California, 1 packet each of *Hemizonia* and *Cacalia nardosmia* seed from Lake County.

- Kennedy, Professor P. B., University of California, 4 roots of *Cicuta Sonnei* from Truckee; 3 roots of *Cicuta vagans* from Reno; 4 living plants of *Opuntia pulchella* and 4 other cacti.
- Kennicott, Mark, Turlock, 1 packet of seed of California wild tobacco, *Nicotiana acuminata*.
- Lowie, Dr. Robert H., American Museum of Natural History, New York City, 1 packet of "Mandan tobacco" seed obtained from a Gros Ventre Indian.
- Orner, A. J., American Board Mission in South Africa, Mount Silinda, Melsetter, Rhodesia, 1 packet of *Lovoa swynnertonii* ("Brown Mahogany") from Mount Silinda.
- Royal Botanic Garden, Edinburgh, Scotland, 5 packets of *Linum* seed.
- R. Orto Botanico, Modena, Italy, 5 packets of *Linum* seed.
- Walker, Miss H. A., University of California, 1 packet of *Hemizonia Luzulaefolia* seed from Tiburon.

(Total number of specimens received by gift from July 1, 1913, to June 30, 1914, for the Botanical Garden, 58. Grand total of donations to the department between these dates, 14,860.)

GIFTS TO THE COLLEGE OF CIVIL ENGINEERING

JULY 1, 1913, TO JUNE 30, 1914

- Pennsylvania Steel Co., large framed picture of Blackwell's Island bridge.
- Strobel Construction Co., plans for four bascule bridges.
- Mrs. A. E. Wright, books for the Civil Engineering Laboratory.
- Healy-Tibbetts Co., six sacks crushed rock.
- E. E. Adams, large framed picture of the Woolworth Building.
- Contra Costa Building Materials Co., Davenport cement for tests.
- W. J. Ashley, blueprints of Twin Peaks tunnel plan.
- McClintic-Marshall Co., shop drawings of the Sather Tower.
- American Bridge Co., plans of the San Francisco Auditorium.
- F. J. Dodge Co., redwood for timber tests.
- Strobel Steel Construction Co., two framed pictures of the Broadway Bridge, Portland.
- Contra Costa Building Materials Co., Davenport cement for tests.
- J. C. Bradfield, two large pictures of Sydney Harbor, Australia.
- Mercereau Bridge Co., through Mr. W. H. Spear, two large pictures of piers.
- F. S. Foote, Jr., two books for the Civil Engineering Library.

GIFTS TO THE COLLEGE OF MINING AND METALLURGY

FOR THE YEAR ENDING JUNE 30, 1914

Mrs. Phoebe A. Hearst has continued her generous gifts to the Mining Department. Besides the expenditure of several thousand dollars for the grading, planting and beautifying of the grounds about the Mining Building, she has authorized the expenditure of \$1855.50 toward a number of needed additions to our equipment.

The Power and Mining Machinery Company of Cudahy, Wisconsin, donated a working size laboratory model of the McCully gyratory ore crusher.

The Denver Rock Drill Manufacturing Company of Denver, Colorado, donated a Clark Air Meter complete with sight feed lubricator and book of instructions for the use of the same. This meter is a valuable addition to our laboratory equipment, as it enables us to measure the air consumed in the running of the rock drills. It has been used by some of the students in connection with their graduating theses.

The Norton Company of Worcester, Massachusetts, have presented us with a large mounted frame showing the raw material in the several stages of manufacture of abrasive wheels and Alundum and Crystolon sharpening tools of all kinds. Alundum is corundum which has been melted in an electric furnace. The whole is mounted on a large frame in a handsome manner so as to illustrate not only the raw products but the manufactured articles also which can be made from it. The gift is a valuable addition to our museum.

From the Coast Manufacturing and Supply Company of Fitchburg, California, 1000 feet of Eclipse Brand Fuse for use in experiments in dynamite blasting.

From the W. S. Tyler Company of Cleveland, Ohio, a handsome mounted frame illustrating the different types of wire cloth and mining screens manufactured by them.

GIFTS TO THE DEPARTMENT OF ZOOLOGY

Baumberger, J. P., 1 duck skeleton from Mt. Eden, California.

Bennett, P. H., 1 *Charina bottae* from Claremont Cañon, Oakland.

Bowden, C. K., 1 *Crotalus* from Guerneville, California.

Chappell, Dr. H. G., 1 anatomical specimen from Oakland, California.

Christiansen, Miss E., '15, 1 *Taenia*.

Clarke, F. C., '11, collection of digestive tracts and parasites of big game animals of California (about 50 containers).

Cook, C. E., Parasitized beetle from Coachella, California.

Copley and Shrift (by Vertebrate Museum), carcasses of 13 *Python reticulatus* for parasites.

Crowell, Professor B. C., specimens of amoebic ulcers from Manila, P. I.

Daniel, Professor J. F., Nematodes taken from *Chelydra* from Indiana.

Engel, Captain, 1 *Remora* from South Pacific.

Gardner, Dr. N. L., 1 sponge from Moss Beach, California.

Gilshap, J. G., 2 rattlesnakes, 1 tarantula, and 1 Solpugid from Patterson, California.

Hawes, Miss H. M., 1 *Rhinocheilus* from Albuquerque, New Mexico.

Kofoed, Professor Charles A., collection (18 jars) of coelenterates, sponges, crustaceans, mollusks, and fish eggs from Bolinas, California; 1 *Chondrotus tenebrosus*, Big Basin, California; 1 parasitized *Rana*, from Chicago, Illinois; 1 *Sorex* from Berkeley Hills; 1 collection (about 250) Hawaiian land shells illustrating isolation; 1 collection fresh-water and marine plankton from Newport, Rhode Island, California, and Illinois (about 30 containers); collection of embryonic stages of various mollusca from Newport, Rhode Island (about 250 vials); collection of embryonic stages of various invertebrates from Atlantic Coast, Illinois, and California (about 150 vials); collection of embryonic amphibians from Michigan, 20 vials; collection of cestodes, trematodes, and nematodes from fresh-water fish from Illinois (25 vials).

McDonald, J. D., collection of liver flukes of sheep from Oakland slaughter-house.

Mitzmain, M. B., 1 foetal monkey from Rizal, Philippine Islands; 3 vials human intestinal Protozoa from Philippine Islands.

Rigg, S. B., 5 bottles of plankton from Alaska.

Rusk, G. Y., 1 *Chondrotus* from Saratoga, California.

Sharp, R. G., '11, 70 bottles of Ciliata from stomachs of cattle from Oakland slaughter-house; 12 charts.

Shaw, J. E., 1 albino gopher snake from Pescadero, California.

Schmidt, W., 1 *Sceloporus* from Walwood, California.

Storer, T. L., 2 specimens *Aneides* and 1 *Diemyctylus* from Piedmont, California.

Thomas, E. E., 3 jars citrus root nematode from Whittier, California.

Weller, Miss L. E., 1 clam from Feather River, California.

Wells, C. E., '11, collection of cestodes, trematodes, cysts, and larvae from *Silvilagus*, from Three Rivers, California; 6 specimens glass sponge (*Euplectella*) from Cebu, Philippine Islands.

Williams, Fairfax, 1 *Gerrhonotus* from Kern River Cañon.

GIFTS TO THE CALIFORNIA MUSEUM OF VERTEBRATE ZOOLOGY

JULY 1, 1913, TO JUNE 30, 1914

NOTE.—This list does not include specimens secured by collectors regularly employed from the fund provided by Miss Annie M. Alexander and other patrons for maintenance of the Museum, nor does it include a number of accessions received by purchase out of the same fund.

The term "mammal" as here used ordinarily means a dry study-skin plus the cleaned skull belonging to the same individual, not infrequently a complete skeleton, and sometimes the entire animal preserved in alcohol. A "bird" is usually a dry study-skin, sometimes a partial or complete skeleton. A "set of eggs" is the total number of eggs found in a single bird's nest, often accompanied by the nest itself. A "reptile" or "amphibian" is the entire animal preserved in alcohol.

Alexander, Miss Annie M., 1 shrew (*Sorex sinuosus*), from Grizzly Island, Solano County; river otter (*Lutra canadensis brevipilosus*), from the same place; skull of *Vulpes*, from Alaska.

Billings, Dr. W. M., 11 foreign finches; one sharp-shinned hawk, from Berkeley.

Bingmann, A., 7 foreign birds.

Bolander, L. P., 11 birds and 230 sets of birds' eggs, from west central California.

Brodie, Samuel, 1 bat (*Lasiurus cinereus*), from University of California campus; 1 mole, from Berkeley.

Brooks, Allan, 4 evening grosbeaks (*Hesperiphona*), from British Columbia.

Broom, Dr. R., mandible of golden mole (*Chrysochloris*), from South Africa.

Bryant, Dr. Harold C., 2 rodents, from the University campus.

Camp, Chas. L., 2 terns (*Sterna forsteri*), from near Alameda; 1 reptile, 22 amphibians, and 3 bats (*Antrozous* and *Eumops*), from Los Angeles County; skulls of skunk (*Mephitis*) and coon (*Procyon*); 4 amphibians and 1 reptile from Marin County.

- Carriger, Henry W., albino house rat.
- Clarke, Frank C., 1 duck (*Spatula*), from Tulare Lake.
- Clay, C. Irvin, 2 crossbills (*Loxia curvirostra minor*), from Eureka.
- Copley, E. W., 8 foreign birds; 3 pythons; 2 monkeys; 6 boas; skeleton of Indian tapir.
- Dice, Lee R., 1 amphibian (*Autodax iëcanus*), from Prescott, Washington.
- Dirks, Wm. N., moles (*Scapanus latimanus*), 5 young and 1 adult, and 1 fawn (*Odocoileus columbianus*), from State Game Farm at Haywards.
- Doolittle, Ottawell M., skull of bear (*Ursus americanus*), from Mendocino County.
- Egan, J. B., 1 albino gopher, from San Francisco.
- Elliott, R. H., 5 sets of birds' eggs, from Merced and Mariposa counties; set of raven's eggs, from Nevada.
- Fair, Paul J., 2 knots (*Tringa canutus*), from Alameda County.
- Feudner, M. O., specimen of Eastern sea brant (*Branta bernicla glauco-gastra*), from Arcata Bay.
- Freeman, E. D., 1 porcupine and 2 snowshoe rabbits, from Placer County.
- Fries, Eric, 7 reptiles, from Berkeley Hills.
- Gobar, G. H., 1 mole (*Scapanus*), from Berkeley.
- Goddard, Dr. Malcolm, skin and complete skeleton of antelope, from Nevada.
- Golden State Ostrich Farm, 1 ostrich for skeleton.
- Grant, Mrs. Adele, 2 evening grosbeaks (*Hesperiphona*), from Siskiyou County.
- Graves, Don, 1 bat (*Nyctinomus*), from Berkeley.
- Gray, W. L., ring-necked snake (*Diadophis*), from Contra Costa County.
- Grinnell, Mrs. Hilda Wood, 3 birds, 25 mammals, and 15 reptiles, from Sonoma County.
- Grinnell, Dr. and Mrs. Joseph, 119 birds and 22 mammals, from Sonoma County.
- Guintylo, J., cranium of horse.
- Hall, Chas. L., 16 mammals and 28 birds, from Eldorado County.
- Hawes, Miss Harriett M., 1 prairie-dog and skeleton of pocket gopher, from Albuquerque, New Mexico; 4 horned toads (*Phrynosoma hernandesi*), from New Mexico.
- Hawver, Dr. J. C., 17 bats (*Corynorhinus*), from Auburn; 1 bird (*Phalaenoptilus*), from Cisco.

- Heath, Professor Harold, 26 birds and 29 mammals, from Alaska.
- Heger, R. H., 4 foreign birds; 1 snake and 2 cockatoos, from Australia; 3 kangaroos (*Macropus*).
- Henshaw, Judge F. W., 3 western white-tailed jackrabbits, from Lassen County; 1 Sierra white-tailed jack-rabbit, from Mono County.
- Holden, F. H., 1 lizard (*Gerrhonotus*), from Berkeley; 1 bird (*Pipilo*); 2 house mice; 1 jackrabbit, from San Joaquin County; 1 gopher.
- Howell, A. Brazier, 1 horned lark (*Otocoris*), from Arizona; 10 reptiles, from Lower California and Arizona; 1 deer (*Odocoileus couesi*), from Arizona.
- Huey, Laurence M., 1 black rail (*Creciscus*), from near San Diego.
- Hunter, J. S., 2 snakes, from Mount Hamilton.
- Kellogg, Miss Louise, 1 black rail (*Creciscus*), from Solano County.
- Koppel, I. L., 2 opossums and 1 deer, from Santa Clara County.
- Law, J. Eugene, 2 bats (*Pipistrellus*), from Imperial County; 1 red squirrel, from White Salmon, Washington.
- Maurer, Mrs. Margaret F., nest of black-tailed gnatcatcher, from near San Diego.
- McLeod, W. D., two birds (*Arenaria*), from Howkan, Alaska; 12 skulls of carnivores, from Alaska.
- Miller, Dr. Loye Holmes, 1 salamander (*Autodax*), from San Bernardino Mountains.
- Parker, Edwin C., 1 grebe (*Colymbus*), from San Francisco Bay.
- Ray, Milton S., 4 birds, from Eastern United States.
- Robison, A. C., 2 foreign birds.
- Ruddock, J. C., Jr., anatomical material representing 4 moles and 2 shrews.
- Rust, Henry J., 9 birds from Coeur d'Alene, Idaho.
- Sears, W. H., 3 foreign birds; 1 baboon; 1 orangoutang; 1 monkey.
- Shelton, Alfred C., 20 birds, from Sonoma County; skeleton of white-tailed kite (*Elanus*).
- Shepherd, Vernon, mounted specimen of hooded merganser (*Lophodytes*), from Solano County; emperor goose (*Philacte*), from Colusa County; 2 "hybrid" geese.
- Shufeldt, Dr. R. W., 3 mammals (*Peromyscus*), from Washington, D. C.
- Siemer, A. H., 2 skulls of turtles, from the Philippine Islands.
- Skaife, Dr. F. W., albatross (*Diomedea*), from the South Seas.

- Smith, Franklin J., 2 birds (*Cyanocitta* and *Vermivora*), from Eureka.
- State Fish and Game Commission, 1 skull of deer (*Odocoileus columbianus*).
- Stephens, Frank, 2 reptiles, from San Diego County.
- Storer, Tracy I., 1 mammal, 8 reptiles, and 11 amphibians, from Los Angeles County.
- Sumner, Dr. Francis B., collection of reptiles and mammals, from the Mohave Desert; 1 amphibian, from Berkeley.
- Swarth, Harry S., 3 mammals (*Perodipus*), from Riverside County.
- Tevis, Lansing K., 16 reptiles (*Crotophytus*, *Crotalus*, etc.), from Kern County.
- Unglish, W. E., albino meadowlark, from near Gilroy.
- Van Rossem, Adriaan, 2 chachalacas (*Ortalis*), from Salvador, Central America; 4 birds (*Oceanodroma*), from Lower California.
- Ward, E. B., limb bones of *Equus* exhumed from a considerable depth near Oroville.
- Watson, R. H., 1 spotted skunk (*Spilogale*), from Tahoe City.
- Wear, Miss Winifred N., 26 bats (*Nyctinomus*), from Fresno.
- Wells, C. E., 2 bats (*Nyctinomus*), from University of California campus.
- Wheeler, Regent Charles S., mounted specimen of great gray owl (*Scotiaptex nebulosa*), from Siskiyou County, California.

LECTURES AND ADDRESSES*

SUMMER SESSION, 1913

ART LECTURES

I. B. Stoughton Holborn, Oxford-Cambridge Lecturer in Art:

- July 14, 15, 16, 17, 18—Art in Daily Life.
- July 14, 15, 16, 17, 18—The Philosophy of the Beautiful.
- July 21—Art's Media of Expression (Time and Space).
- July 21—Woodwork.
- July 22—Art in the Life of the Past.
- July 22—The Nature of Pure Art.
- July 23—Beauty, Truth, and Goodness.
- July 23—Ironwork.
- July 24—What is Beauty?
- July 24—Pure Art in Form.
- July 25—The Search for a Standard.
- July 25—The Greek and Gothic Spirit.
- July 27—Sophocles, the Greatest of All Human Teachers.
- July 28—The Search for a Standard. (Repetition of lecture delivered July 25.)
- July 28—The Greek and Gothic Spirit.. (Repetition of lecture delivered July 25.)
- July 29—The Kosmic Unity.
- July 29—Evolution in Art. The Gothic Window.
- July 30—The Kosmos of Kosmoi.
- July 30—Minor Art (Dress).
- July 31—The Ugly.
- July 31—The Reform in Popular Taste.
- August 1—The Artist.

ANTHROPOLOGY LECTURES

Hutton Webster, Professor of Social Anthropology, University of Nebraska:

- July 16—Spiritualism in Primitive Religion.
- July 21, 23—Savage Spiritualism.

ARCHAEOLOGY LECTURES

Oliver M. Washburn, Assistant Professor of Classical Archaeology:

- June 23—Ancient Life in Modern Greece.
- June 24—The Physical Survey of Greece.
- June 25—The Stone Age in Cyprus and Troy.
- June 26—Beginnings of the Bronze Age.
- June 26—The Home of Minos, the Sea-King.
- June 30—Mycenean Tombs.
- July 1—Mycenean Goldsmiths and Painters.
- July 3—Mycenean Religion.
- July 7—Ionia, the Melting-Pot.
- July 8—Technique of Greek Art.
- July 9—Development of the Temple.
- July 10—The Greek Order.
- July 11—Greek Profane Architecture.
- July 14—The Beginnings of Sculpture.
- July 15—Archaic Sculpture.
- July 16—Pre-Persian Athens.
- July 17—Myron the Realist.
- July 18—Polyclitus the Scientist.
- July 21—Phidias the Idealist.
- July 22—The Parthenon.
- July 23—The Sculptures of Olympia.
- July 24—Scopas, Portrayer of Emotion.
- July 25—Praxiteles, Portrayer of Revelry.

EDUCATION LECTURES

Olly J. Kern, Superintendent of Schools of Winnebago County, Illinois:

- June 23—Some Things Done to Secure Better School Buildings and More Attractive Grounds.
- June 24—Interior Improvement of the Country School House.
- June 25—Nature-Study Agriculture in Country Life Education.
- June 26—Play and Recreation in the Open Country.
- June 27—Consolidation and the Country High School.

FRENCH LECTURES

Gilbert Chinard, Associate Professor of French:

- June 30—Le Roman historique: Alfred de Vigny, Victor Hugo, Alexandre Dumas.
- July 14—Un Realiste romantique: Balzac.
- July 21—Flaubert et les romanciers naturalistes.
- July 28—Les tendances du roman contemporain.

POLITICAL SCIENCE LECTURES

Thomas H. Reed, Associate Professor of Government:

- June 24—The Failures of Representative Democracy.
- June 26—The Long Ballot as a Source of Political Corruption.
- July 1—The Problem of Party Loyalty.
- July 3—Nomination to Office.
- July 8—Our Judicial Problem.
- July 10, 15—The Disorganization of State Administration.
- July 17—The Place of Experts in State and Local Administration.
- July 22—State Administration of Education.
- July 24—The Initiative, Referendum and Recall in Representative Government.

LECTURES ON PUBLIC HEALTH

Charles Gilman Hyde, Professor of Sanitary Engineering:

- July 30—Public Water-Supplies and the Public Health.

Myer E. Jaffa, Director of the State Food and Drug Laboratory:

- July 21—How the New Food and Drug Legislation Affects the Consumer.

T. C. McCleave, of Berkeley:

- July 28—Pure Milk in the Small City.

R. E. Peers, President of the Society for the Study and Prevention of Tuberculosis:

- June 30—A public lecture.

M. P. Ravel, Professor of Bacteriology and Director of the State Hygienic Laboratory, University of Wisconsin:

- June 25—Public Health.

G. F. Reinhardt, Professor of Hygiene:

- June 23—The Future of Curative Medicine.

William F. Snow, Secretary of the California State Board of Health:

- July 14—The Average Citizen and the Health Officer.

LECTURES ON HINDU LITERATURE

Arthur W. Ryder, Assistant Professor of Sanskrit:

- June 26—The Vedanta Philosophy.
- July 3—The Sankhya Philosophy.
- July 10—Buddhism.
- July 17—Hindu Epic Poetry.
- July 24—Hindu Fables and Epigrams.
- July 31—Hindu Lyric Poetry.

MISCELLANEOUS LECTURES

- W. B. Herms, Assistant Professor of Parasitology:
July 7—The Practical Aspects of Parasitology.
- Arthur P. McKinley, Instructor in Latin and Greek:
July 22—*The Frogs* of Aristophanes.
- Romilda Paroni, Lecturer in Hygiene and Medical Examiner:
July 2 and 16—Eugenics Through Legislation and Education.
- Miss Ednah A. Rich, President of the State Normal School of Manual Arts and Home Economics, Santa Barbara:
July 14—Vocational Guidance.

ACADEMIC YEAR, 1913-14

LECTURES ON ACHIEVEMENTS AND AIMS OF PRESENT-DAY SCIENCE

- H. C. Biddle, Assistant Professor of Chemistry:
February 4—The Chemist's Contribution to the Problem of the World's Future Food Supply.
- Warner S. Brown, Assistant Professor of Psychology on the Mills Foundation:
April 22—The Psychology of Dreams.
- J. N. Force, Assistant Professor of Epidemiology:
April 15—The Maintenance of Health through Community Effort.
- F. P. Gay, Professor of Pathology:
April 1—Nature and Causation of Disease.
- R. S. Holway, Assistant Professor of Physical Geography:
February 18—California Viewed from the Standpoint of Modern Geography.
- W. L. Jepson, Associate Professor of Dendrology:
March 18—Origin, Relationships, and Persistence of the Californian Flora.
- A. L. Kroeber, Associate Professor of Anthropology:
February 25—Heredity, Instinct, and Environment.
- A. C. Lawson, Professor of Mineralogy and Geology:
February 11—Climate in Geological History.
- A. O. Leuschner, Professor of Astronomy:
January 28—Recent Developments in the Theory of Orbits of Comets and Planets.
- E. P. Lewis, Professor of Physics:
January 21—What the Spectroscope has Accomplished for Physics and Astronomy.

Jacques Loeb, of the Rockefeller Institute for Medical Research:

March 30—Determinism in Animate Nature.

Karl F. Meyer, Associate Professor of Bacteriology and Protozoology:

April 8—Contributions to the Biology of Pathogenic Protozoa.

R. O. Moody, Assistant Professor of Anatomy:

March 11—The Anatomical Trail.

W. E. Ritter, Director of the Scripps Institution for Biological Research and Professor of Zoology:

March 4—The Probabilities of Good and the Possibilities of Harm in the Eugenics Movement.

LECTURES ON ADVERTISING AND SALESMANSHIP

F. H. Abbott, Jr., of the F. H. Abbott Company, Chairman of the Graphic Arts Committee of the Advertising Association of San Francisco:

January 22—Gauging the Prospective Buyer.

March 19—Color Values in Advertising.

Rollin C. Ayres, Advertising Counselor, President of the Advertising Association of San Francisco:

April 16—Real Estate and Community Advertising.

George A. Cummings, Advertising Manager of the John Breuner Company, Sacramento:

April 9—Mail Order Advertising.

George H. Eberhard, President of the George H. Eberhard Company:

January 14—The Mental Law of Sale.

February 5—Price Maintenance as a Business and Public Policy.

Will J. French, of the Industrial Accident Commission:

March 30—The Safety-First Movement in Industry.

Arthur S. Hill, of the J. Charles Green Company:

March 12—Advertising Mediums.

N. Mitchell, Sales Manager of the Owl Drug Company:

January 29—Retail Salesmanship.

F. S. Nelson, Advertising Manager of O'Connor, Moffatt and Company:

April 2—Retail Advertising.

George Hough Perry, Director of Publicity of the Panama-Pacific International Exposition:

March 5—Preparing an Advertisement.

William Rieger, President of Paul Rieger and Company, Chairman of the Vigilance Committee of the Advertising Association of San Francisco:

March 26—National Advertising.

Charles H. Victor, Manager of the Yawman-Erbe Manufacturing Company:
February 19—Methods of Central Supervision and Control of Field Agents.

L. A. Williamson, of the Standard Oil Company:
February 26—Salesmanship as a Life Work.

William Woodhead, Manager of the Sunset Publishing Company, President of the Associated Advertising Clubs of America:
April 23—The Profession of Advertising as a Life Work.

ANTHROPOLOGY LECTURES

(Delivered on Sunday afternoons at the Museum of Anthropology,
Affiliated Colleges, San Francisco)

E. W. Gifford, Assistant Curator of the University Museum of Anthropology.

June 29—Art and Symbolism of the Plains Indians.

August 17—Songs and Myths of the Sierras.

October 5—Egypt in the Stone Age.

October 12—Who Were the Egyptians?

October 19—Books Four Thousand Years Ago.

October 26—Monuments of Egypt.

November 2—Osiris, the Resurrected.

November 9—An Egyptian Funeral.

November 22—Indian Apartment Houses.

December 7—Apache and Navajo.

December 14—Where Women Own the Homes.

January 11—Noted Kings and Queens of Egypt: III. Rameses the Great.

January 18 and 25—Cleopatra.

February 1—Dress and Adornment.

February 8—Cleopatra.

February 22—Indians of the Yosemite.

March 7—Easter Island, the Mystery of the Pacific.

March 22—Cannibal Fiji.

April 12—The Seven Ages of Peru.

April 19—Life in Ancient Peru.

May 3—The Pyramids.

May 10—The Greeks in Egypt.

A. L. Kroeber, Associate Professor of Anthropology and Curator of the Anthropological Museum:

June 22—Dances and Songs of the Plains Indians.

July 14—Race Problems and Prejudices.

August 31—Writing Words by Machine.

September 14—Watching the Tongue at Work.

September 28—The Phonograph and Human Speech.

January 30—Mechanical Records of Speech.

March 29—Earliest Man.

April 5—The Dawn of Human Intelligence.

T. T. Waterman, Assistant Professor of Anthropology:

September 7—The Organs of Speech.

September 21—Simplified Spelling.

November 16—The Mystery of the Cliff Dwellers.

November 30—The Pueblo Snake Dance and its Meaning.

January 28—The Conventional Character of the Sounds of Speech.

April 26—The Rosetta Stone—the Key to the Hieroglyphs.

ARCHAEOLOGY LECTURES

Oliver M. Washburn, Assistant Professor of Classical Archaeology:

August 26—Physical Structure of Greece.

September 2—The Greek House.

September 9 and 16—Furnishings of the Greek House.

September 23 and 30—Greek Dress.

October 7 and 14—Greek Education.

October 21—Greek Athletic Sports.

November 4—Death and Burial.

November 11—Armor and Welfare.

November 18—Greek Ships.

November 25—Greek Coins.

December 2—Greek Trades and Professions.

January 27—Thera, a Greek Pompeii.

February 3—Ephesus.

February 10—Priene.

February 15—Olympia and Olympian Games.

February 17—Priene (II).

March 3—Miletus.

March 10—Delphi and the Oracle.

March 17—Olympia and the Games.

March 24—Epidaurus and the Sanitarium of Aesculapius.

FIRE INSURANCE LECTURES

A. M. Brown, of the Svea, Agricultural, and Globe and Rutgers' Fire Insurance Companies:

March 24—Fire Insurance Rating: Mercantile and Manufacturing Schedules.

W. S. Duval, of the Board of Fire Underwriters:

March 17—Fire Insurance Rating: The Tariffs for Unrated Risks.

Herbert Folger, of the German-American Insurance Company and the Phoenix Company of Hartford:

February 17—Introductory: Fire Insurance—Its Relation to the Community.

F. B. Kellam, of the Royal Insurance Company:

February 24—The Insurance Office.

C. C. Kinney, of the Franklin and Reliance Insurance Companies:

March 3—Fire Waste and Fire Protection.

R. W. Osborn, of the Pennsylvania Fire Insurance Company:

March 10—The Fire Insurance Contract.

G. M. Robertson, of the Board of Fire Underwriters:

March 31—Inspection and Fire Protection.

A. W. Thornton, of the London Assurance Corporation:

April 7—The Adjustment of Fire Losses.

FORESTRY CLUB LECTURES

C. S. Brothers, Expert on the Classification of Lands of the United States Forestry Service:

February 24—Classification of Lands in the Forestry Service.

John H. Hatton, Grazing Expert of the Federal Service:

March 10—Grazing in National Forests.

C. S. Smith, Chief of the Department of Forest Products of the U. S. Forestry Service:

April 21—The Work of the Department of Forest Products.

C. L. Trabert, Secretary of the C. A. Smith Lumber Company:

April 7—The Coniferous Trees of the Pacific Coast.

T. D. Woodbury, Chief of Silviculture in the United States Forest Service:

March 24—Silviculture.

HITCHCOCK LECTURES

Henry Fairfield Osborn, Research Professor of Zoology in Columbia University and President of the American Museum of Natural History:

February 17—Men of the Old Stone Age in Europe: Environment and Life in Early Interglacial Periods.

February 18—Men of the Old Stone Age in Europe: Climatic Changes, the Emergence of a New Type of Race in the Later Interglacial Period.

February 19—Men of the Old Stone Age in Europe: Appearance of the Cro-Magnon Race: The Upper Palaeolithic and Characteristics of Its Races.

February 20—Men of the Old Stone Age in Europe: Art and Religion, Conclusions as to the Antiquity of Man.

LEAGUE OF THE REPUBLIC LECTURES ON CITY PLANNING

Charles H. Cheney, Architect, and Secretary of the Oakland City Planning Committee and of the City Planning Section of the Commonwealth Club:

February 17—The Zone System, and the Relation of Business, Manufacturing, and Residence Districts.

George W. Dickie, City Superintendent of Recreation in Oakland:

April 7—Paygrounds and Recreative Facilities, Outdoor and Indoor.

John J. Donovan, Supervising Architect for the City of Oakland:

April 21—Wider Uses for the Schools.

J. W. Gregg, Professor of Landscape Gardening and Floriculture:

April 14—Gardens, Public and Private, and City Planning.

Werner Hegemann, Secretary of the Berlin City-Planning Exposition:

January 27—The Problem of City Planning.

March 31—Railroad Facilities.

John Galen Howard, Professor of Architecture and Director of the School of Architecture:

February 3—The Art of City Planning.

C. G. Hyde, Professor of Sanitary Engineering:

February 10—Water Systems, Sewer Systems, and Street Construction for Cities.

Duncan McDuffie, '99:

March 24—The Development of Residence Districts under Wise Restrictions.

John Nolen, of Cambridge, Massachusetts, City Planner and Landscape Architect:

April 28—Replanning of Small Cities.

M. M. O'Shaughnessy, City Engineer of San Francisco:

February 24—Street Construction.

Jessica B. Peixotto, Assistant Professor of Social Economics:

March 17—The Garden City, the Tenement, and Other Experiments in the Housing Problem.

Thomas H. Reed, Associate Professor of Government:

January 20—The Growth of Cities.

March 10—The Metropolitan Park System of Boston.

Fredericks H. Tibbets:

March 3—Harbor Planning.

LEAGUE OF THE REPUBLIC LECTURES ON IMMIGRATION

- David P. Barrows, Professor of Political Science and Dean of the Faculties:
November 25—Immigration and Legislation.
- Franz Bopp, German Consul General:
October 6—German Immigration.
- Ira B. Cross, Assistant Professor of Economics in Stanford University:
November 18—Immigration and Political Radicalism.
- Harry Edsell, Immigration Commissioner:
September 2—The Status of Immigration in California.
September 9—The Future of Immigration in California.
- Sydney Gulick:
September 16—Japanese Immigration.
- Right Rev. Edward J. Hanna, Auxiliary Bishop of San Francisco:
October 13—Latin Immigration.
- Rabbi Martin A. Meyer, Lecturer in Semitic Literature and History:
September 23—Hebrew Immigration.
November 4—Immigration and the Social Evil.
- Ng Poon Chew, Editor of *Chung Sai Yat Po*:
September 20—Chinese Immigration.
- Carleton H. Parker, Assistant Professor of Industrial Economy:
October 28—Immigration and Labor.
- Thomas H. Reed, Associate Professor of Government:
August 26—History of American Immigration.

LICK OBSERVATORY LECTURES

- R. G. Aitken, Astronomer at the Lick Observatory:
March 10—Visual Double Stars.
March 12—Spectroscopic Binary Stars.
- W. W. Campbell, Director of the Lick Observatory:
April 21 and 23—Stellar Evolution.
- R. H. Tucker, Astronomer at the Lick Observatory:
April 15—Motion of Stars.
April 17—Distance of the Stars.

PHILOSOPHICAL UNION LECTURES

- George P. Adams, Assistant Professor of Philosophy on the Mills Foundation:
October 31—The Background of Present-Day Thinking—The Religious Tradition.

November 7—The Background of Present-Day Thinking—The Scientific Tradition.

April 3—The Idealistic Conception of the Fundamental Reality.

April 10—The Idealistic Doctrine of the Self.

April 24—Idealism and Religion.

Warner Brown, Assistant Professor of Psychology on the Mills Foundation:
October 24—Experimental Methods and Problems in Psychology.

Warner Fite, Professor of Philosophy in the University of Indiana:
December 5—The Pragmatic Method and Science.
December 12—The Pragmatic Doctrine of Truth.

C. I. Lewis, Instructor in Philosophy on the Mills Foundation:
January 15—Henri Bergson and Contemporary French Thought.
January 23—Bergson and Science.
January 30—Bergson's Defense of the Inner Life
February 6—The Permanent Significance of Bergson's Philosophy.

Arthur O. Lovejoy, Professor of Philosophy in Johns Hopkins University:
September 5—Bergson and Romantic Evolution.
September 12—Romantic Evolution and Philosophy of Religion.

A. U. Pope, Assistant Professor of Philosophy on the Mills Foundation:
November 14—The Problem of Philosophy.
November 21—The Methods of Philosophy.
March 27—Idealism and Truth.

Hastings Rashdall, Litt.D., Hon. D.C.L., Fellow and Tutor of New College, Oxford, and Canon of Hereford Cathedral:
October 17—The Philosophy of Religious Experience.

C. H. Rieber, Professor of Logic on the Mills Foundation:
February 13—The New Realism in America.
February 20—Realism and the Self.
February 27—Realism as the Philosophy of Disillusionment.

George H. Sabine, Associate Professor of Philosophy, Leland Stanford Junior University:
March 6—Contemporary Idealism in Germany and England.
March 13—Contemporary Idealism in America.
March 20—Idealism and Science.

George M. Stratton, Professor of Psychology on the Mills Foundation:
October 10—Psychology and Religion.
October 3—Psychology and Law.
September 19—The Problems and Aims of Present-Day Psychology.
September 26—Psychology and Medicine.

PHYSICS DEPARTMENT LECTURES

R. B. Abbott, Instructor in Physics:

February 27—Interference of Electro-magnetic Waves from Two Sources.

October 3—Absorption of Electro-magnetic Energy.

T. S. Elston, Instructor in Physics:

September 23—Positive Rays in Vacuum Tubes.

E. P. Lewis, Professor of Physics:

February 13—The Ultra-Microscope.

R. S. Minor, Associate Professor of Physics:

March 13—The Physics Teachers of California High Schools.

W. J. Raymond, Associate Professor of Physics:

April 17—The Flaming Arc High Frequency Electrical Interrupter

October 31—The Elementary Charge of Electricity.

David P. Barrows, Professor of Political Science:

January 14—The Buddhistic Ruins of Java.

Jesse Benedict Carter, Director of the American Academy in Rome.

March 2—Art and Archaeology in Rome.

David M. Robinson, Professor of Archaeology at Johns Hopkins University:

April 6—Buried Cities of Asia Minor.

LECTURES ON SOCIAL ASPECTS OF THE LIQUOR PROBLEMS

S. H. DeKay, of Berkeley:

October 13—The Relation of Liquor to Business.

H. B. Fry, M.D.:

October 27—Ethical Phases of the Liquor Problem.

Rufus L. Green, Professor of Mathematics, Leland Stanford Junior University:

November 17—Legislative Methods of Dealing with the Liquor Problem.

W. B. Herms, Assistant Professor of Parasitology:

November 3—European Methods of Dealing with the Liquor Problem.

Franklin H. Hichborn:

October 6—Liquor Revenue as a Source of National Income.

Samuel J. Holmes, Associate Professor of Zoology:

September 8—Alcohol and Heredity.

C. A. Kofoid, Professor of Zoology and Assistant Director of the Scripps Institution for Biological Research:

August 25—Social Aspects of the Liquor Problem.

Walter MacArthur, U. S. Shipping Commissioner:

October 20—Relation of Liquor to the Labor Problem.

A. M. Meads, Infirmary Physician:

September 15—Alcohol and Public Health.

R. O. Moody, Assistant Professor of Anatomy:

September 1—Psychological Effects of Alcohol.

Jessica B. Peixotto, Assistant Professor of Social Economics:

September 22—The Relation of Liquor to Poverty and Crime.

Thomas H. Reed, Associate Professor of Government:

September 29—The Relation of Liquor to Politics.

C. E. Rugh, Associate Professor of Education:

November 10—The Relation of Liquor to Education.

WEINSTOCK LECTURE (ANNUAL)

John Bates Clark, Director of the Division of Economics and History of the Carnegie Endowment for International Peace:

September 4—Social Justice without Socialism.

ZOOLOGY LECTURES

Joseph Grinnell, Director of the California Museum of Vertebrate Zoology:

January 19—Midwinter Birds on the University Campus.

January 26—The Identification of Birds from their Songs and Behavior.

February 2—Some Mammals of California and their Economic Relations.

February 9—Our Native Birds and Mammals as Valuable Assets of the State.

February 16—Water Birds on San Francisco Bay.

February 23—Nesting Habits and Eggs of Our Native Birds.

MISCELLANEOUS LECTURES

George P. Adams, Assistant Professor of Philosophy on the Mills Foundation:

November 13—The Philosophical Basis of Socialism. (Before the Intercollegiate Socialist Society.)

J. T. Allen, Associate Professor of Greek:

March 15—Greek Papyri from Egypt, and the New Testament.

Norman Angell, Director of the Paris *Daily Mail*:

March 27—A public lecture.

William F. Badé, Editor of the *Sierra Club Bulletin*:

February 19—Birds of the High Sierras.

- H. Foster Bain, Editor of the *Mining and Scientific Press*:
October 28—Present-Day Problems on the Genesis of Ore Deposits and their Relation to the Engineer.
- F. Baldensperger, Professor of Comparative Literature in the Sorbonne:
February 13—Alfred de Vigny et la Littérature Anglaise.
February 14—Maurice Barrès et la jeunesse intellectuelle.
- David P. Barrows, Dean of the Faculties and Professor of Political Science:
September 25—The Establishment of the American System of Education in the Philippines.
- John D. Barry, of the San Francisco *Bulletin*:
January 26—The Spirit of Cosmopolitanism. (Before the Cosmopolitan Club.)
- T. E. Bibbins, of the General Electric Company:
February 12—Service and Confidence the Basis of Trade.
- Carlos Bransby, Assistant Professor of Spanish:
February 16—The Spanish Drama.
- Paul F. Brissenden, Assistant in Economics:
March 26—The Problem of Unemployment.
- John A. Britton, Regent of the University:
March 4—Cost Data Involved in Gas Engineering. (Before Associated Electrical and Mechanical Engineers.)
- H. P. Bryant, Assistant Curator of Birds, California Museum of Vertebrate Zoology:
April 20—Turtles, Lizards, and Snakes of California.
- C. G. Chinard, Associate Professor of French:
February 20—Cervantes.
March 30—Balzac.
April 2 and 6—Victor Hugo.
- Judge John B. Clayberg, of the San Francisco Bar:
March 26—The Drum-Lummon Litigation.
- Alfred J. Cleary, Assistant City Engineer of San Francisco:
February 18—Recent Municipal Engineering and Developments: High Pressure System, Municipal Railroads, Sewer System. (Before Civil Engineering Association.)
- William E. Colby, Lecturer in the Law of Mines in the School of Jurisprudence.
February 26—The Public Domain.
- Miss Constance Collier, of Sir Herbert Beerbohm Tree's and Mr. William Faversham's companies:
October 28—Shakespeare's Women.

Miss Bertha Condé, of New York:

March 10, 11, and 12—Christianity and the Modern Student.

William Morris Davis, Sturgis-Hooper Professor of Geology, Emeritus,
Harvard University:

February 10—The Larger Topographic Forms of Desert Regions.
(Before LeConte Geological Club.)

T. N. Dean, of the University of Toronto:

March 16—Some Exciting Incidents of Canadian Pioneer Days.
(Before Cosmopolitan Club.)

George Sherwood Eddy, Yale, '91:

March 9, 10, 11, and 12—The Greatest Things in the World.

S. Richard Fuller, of Boston:

September 10—The Ides of March.

Charles Wellington Furlong, F.R.G.S.:

October 7—Chile and the Fuegian Archipelago.

H. W. Gleason, of Boston:

August 26—Glacier National Park and the Canadian Rockies.
(Before Sierra Club.)

November 3—Camping and Tramping with the Sierra Club.

J. M. Gleason:

August 24—California History. (Before Alumni Council of the
Newman Club.)

M. W. Glover, Chief Quarantine Officer, Angel Island:

August 30—Legal Mechanism (Federal) for the Control of Disease.

Joseph Grinnell, Director of the California Museum of Vertebrate Zoology:

April 23—Adaptive Structures and Habits in Boreal Birds. (Before
Cooper Ornithological Club.)

Sydney Gulick:

September 11—Some Phases in the Japanese Problem.

George M. Haushalter, of Boston:

February 13—The Tides of Art.

Oluf J. Heinemann:

September 23—Notes on Bird Photography. (Before Cooper Orni-
thological Club.)

Samuel J. Holmes, Associate Professor of Zoology:

April 6—The Biography of a Barnacle.

March 30—The Crabs, Lobsters, and Other Crustaceans of the
Pacific Coast.

Kang Woo Kiang, of the University of Peking:

January 29—Education and Social Reform in China. (Before Inter
collegiate Socialist Society.)

B. N. Langdon-Davies, Visiting Lecturer of the Garton Foundation of London:

November 13—Economic Aspects of War and Peace.

J. N. LeConte, Professor of Engineering Mechanics:

September 10—Some Recent Developments in Internal Combustion Engines. (Before Sigma Xi.)

Louis Levy, Chief of Local Publicity of the Panama-Pacific International Exposition:

September 17—The Panama-Pacific Exposition and the Panama Canal.

John Stephen McGroarty, author of "The Mission Play":

September 4—California, Its History and Romance, and "The Mission Play."

September 19—California Romance.

Elwood Mead, Chairman of the States Rivers and Water Supply Commission of Victoria, Australia:

March 17—Australian Irrigation Systems.

J. C. Merriam, Professor of Palaeontology and Historical Geology:

August 25—The Philosophy of Ancient History. (Before Kosmos Club.)

March 23—Extinct Faunas of the Mojave Desert: Their Significance in a Study of the Origin and Evolution of Life in America. (Second annual Faculty Research Lecture.)

Martin A. Meyer, Lecturer in Semitic Literature and History:

February 28—Jewish Ceremonial Objects.

F. H. Meyers, Director of the California School of Arts and Crafts:

March 24—The Altar-Piece of Ghent.

Lester L. Morse:

October 21—Seed Production. (Before Agriculture Club.)

Eugen Neuhaus, Instructor in Drawing:

August 29—Public lecture on the Poster Exhibition, Architectural Building.

March 6—Contemporary Art.

G. R. Noyes, Associate Professor of Slavic Languages:

March 4 and 6—Rousseau.

April 10 and 13—Tolstoy.

José E. Quiroga, of Mendoza, Argentina:

October 27—The Argentine Republic. (Before Cosmopolitan Club.)

Hastings Rashdall, Litt.D., Hon. D.C.L., Fellow and Tutor of New College, Oxford, and Canon of Hereford Cathedral:

October 13 and 15—Idealism and Its Critics.

W. E. Ritter, Director of the Scripps Institution for Biological Research and Professor of Zoology:

March 2—The Sea Contrasted with the Land as a Home for Organic Beings.

March 9—The Determination of Problems and the Methods of Marine Research Employed by the Scripps Institution for Biological Research.

March 16—Some of the Results so far Obtained by the Various Investigations of the Scripps Institution.

Harris J. Ryan, Professor of Electrical Engineering, Leland Stanford Junior University:

November 19—High Voltage Phenomena. (Before Associated Electrical and Mechanical Engineers.)

W. E. Sage, of the General Electrical Company:

November 5—Exterior Illumination.

H. K. Schilling, Professor of the German Language and Literature:

March 16 and 18—Goethe.

J. A. Schumpeter, of the University of Gratz, Austria, Exchange Professor in Economics:

February 24—Marx's Economic System.

R. B. Scott, of the Dow Pump Company:

October 15—The Diesel Engine.

J. Perrin Smith, Professor of Palaeontology:

November 5—The Evolution of the Cephalopods.

Wallace I. Terry, Professor of Surgery:

April 9—Some Men Who Have Influenced Medical Thought.

Charles E. Townsend, of the San Francisco Bar:

March 12—Fundamental Principles of Patent Law.

March 19—The Relation of Big Business to Modern Tendencies in Patent Matters.

John E. D. Trask, Director of Fine Arts of the Exposition:

February 27—The Artistic Significance of the Panama-Pacific Exposition.

Stanley V. Walton, '04:

October 21—The Use of Electricity on the Farm. (Before Agriculture Club.)

H. J. Weber, Associate Professor of German:

March 9—Lessing.

March 13—Goethe.

C. W. Wells, Associate Professor of English Composition:

April 8—Turgenev.

DEATHS OF MEMBERS OF THE UNIVERSITY

Crane, Donald Charles, of the Class of 1917, College of Commerce, January 15, 1914.

Glascock, Dr. John Raglan, of the Class of 1865, November 10, 1913.

Holden, Dr. Edward Singleton, President of the University from 1885 to 1888, March 16, 1914.

Newbauer, William, of the Class of 1913, a graduate student, October 8, 1913.

Rehorn, Henry William, of the Class of 1915, College of Social Sciences, August 23, 1913.

Reinhardt, Dr. George Frederick, Professor of Hygiene and University Physician, June 7, 1914.

Wenzell, Dr. William Theodore, Professor of Chemistry, Emeritus, in the College of Pharmacy, July 31, 1913.

Wiley, Rev. Samuel Hopkins, a founder of the College of California and its first executive officer, January 21, 1914.

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PUBLISHED WRITINGS OF OFFICERS OF THE UNIVERSITY

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A New Comet (Zlatinsky). Publ. Astron. Soc. Pac., vol. 26, no. 154, p. 155; June, 1914.

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- One Hundred New Double Stars, Twentieth List. Lick Obs. Bull., vol. 7, no. 240, p. 186; Sept., 1913.
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- ALVAREZ, ARTHUR CARL, Assistant Professor of Civil Engineering.
- An Improved Type of Axial Strainometer. Proc. Am. Soc. for Testing Materials for 1914, vol. 14; June, 1914.
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BECKWITH, HOLMES, Assistant in Economics.

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BELL, CLAIR HAYDN, Instructor in German.

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BOLTON, HERBERT EUGENE, Professor of American History.

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BONNS, WALTER WEIDENFELD, Assistant Professor of Pomology.

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BROWN, WARNER, Assistant Professor of Psychology.

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BURD, JOHN SEDGWICK, Professor of Agricultural Chemistry.

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BRYANT, HAROLD CHILD, Assistant Curator of Birds, California Museum of Vertebrate Zoology.

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CHINARD, CHARLES GILBERT, Professor of French.

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CLARK, Miss LILLIAN DORA, Assistant in Agricultural Extension.

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SUNDAY HALF-HOURS OF MUSIC IN THE GREEK THEATRE

(OPEN TO THE PUBLIC)

1913

- June 29—Mr. and Mrs. Joseph Beringer presented Miss Zdenka Buben, pianist, Miss Irene De Martini, dramatic soprano, Mrs. Henry J. Widenmann, contralto.
- July 6—Mrs. Therese Oliver-Pixley, soprano, and Mrs. Dwight V. Ross, pianist.
- July 13—Miss Lillian Sieger, cornet soloist (Mr. M. M. I. Myers, accompanist), and Mrs. Edna Barth Wolfe, whistler (Miss Birdie Mae Reed, accompanist).
- July 20—Mrs. Charles Poulter, soprano, assisted by Miss Ethel Isaacs, violin, Mr. Charles Neale, flute, Mr. D. P. Hughes, organ, and Mrs. Robert M. Hughes, piano.
- July 27—Mr. E. G. Stricklen (Assistant in Music in the University of California), pianist, assisted by Mr. Lowell M. Redfield, baritone, and Mrs. Mabel Hill Redfield, accompanist.
- Aug. 24—The Columbia Park Boys' Club Band, Mr. Conrad Horst, director.
- Aug. 31—Mr. E. G. Stricklen (Assistant in Music in the University of California), pianist, and Mr. Stephen Wyckoff, Jr., '14, baritone.
- Sept. 7—Mr. Austin Willard Sperry, baritone, and Mr. Harris Allen, accompanist.
- Sept. 14—The vested choir of St. Mark's Episcopal Church, Berkeley, and Miss Beatrice Lucretia Sherwood, pianist, under the direction of Mr. Roscoe Warren Lucy.
- Sept. 21—Miss Marie-Estelle Milliette, soprano, and Miss Eleanor Morris, accompanist.
- Sept. 28—Mrs. Florence Le Roy-Chase, soprano, Mr. Arthur Conradi, violinist, and Mr. Frank Moss, pianist.
- Oct. 5—The Peninsula World's Fair Band, Mr. Alois Winkler, director.
- Oct. 12—Signor Ferdinando Avedano, tenor, Mme. Stella Best, mezzo-soprano contralto, and Mr. August Serrantoni, accompanist.
- Oct. 19—Mr. Ernest Paul Allen, violinist, assisted by Mrs. Rosena Leaves Allen, pianist, and the Allen Violin Club.

- Oct. 26—Mrs. Cecil Mark, soprano, Miss Jeanne Eleanor Jenks, violinist, and Mr. John Manning, accompanist.
- Nov. 2—Mrs. Frances Thoroughman, soprano, presenting Miss Bonita Coffman, mezzo-soprano, Mr. H. D. Cutrell, baritone, Mr. A. E. Steele, baritone, Mr. Frank Campbell, tenor, and Mrs. May Brooke, accompanist, were announced; but the concert was postponed one week on account of inclement weather.
- Nov. 9—See November 2.
- Nov. 16—Sixteen advanced piano students of Mr. Georg Krüger.
- Nov. 23—The Oakland Damen-Chor, Frau Camilla Buergermeister, director and soprano soloist; Frau T. Schulz, accompanist; Herr T. Schulz, violinist.
- Nov. 30—The Wednesday Morning Choral of Oakland, Mrs. Walter H. Henry, president; Mr. Paul Steindorff, director, Miss Marie Sloss, accompanist.
- Dec. 7—Mme. Gabrielle Chapin, lyric soprano, and Mr. Frederick Maurer, Jr., accompanist.
- Dec. 14—Mr. H. F. Fairweather, tenor robusto, and Mr. Frederic Maurer, Jr., accompanist.

1914

- Mar. 1—Mr. Clinton R. Morse, '96, presented Miss Ruth Bowers, soprano, Mr. Leon Ettinger, '15, baritone, and E. Warren Raeder, accompanist.
- Mar. 8—Miss Lillian M. Robinson, soprano, and Miss Beatrice Clifford, accompanist.
- Mar. 15—Mr. Thomas C. Barr, tenor, and Mrs. L. H. Dyke, accompanist.
- Mar. 22—Mr. Frank L. Frick, baritone (Mrs. Willard Batchelder, accompanist), and Mr. Arthur Conradi, violinist (Mrs. Edwin H. Garthwaite, accompanist).
- Mar. 29—Miss Mary Sherwood, 'cellist (Miss Beatrice Clifford, accompanist), and Master E. A. Francis Neilson, soprano (Mrs. Katherine Neilson, accompanist).
- Apr. 5—Mrs. Kenneth Croft, soprano, assisted by Mr. Frederick G. Harrison, baritone, under the direction of Dr. H. J. Stewart.
- Apr. 12—The University of California Glee Club and the De Koven Club (Mr. Clinton R. Morse, director).
- Apr. 19—Gaul's oratorio "Holy City" by the choir of the First Methodist Episcopal Church, Oakland (Mr. Edwin Dunbar Crandall, director).
- Apr. 26—The University of California Cadet Band, Captain L. K. Newfield, chief musician.
- May 3—Miss Margaret Kemble, interpretative reader, and Miss Esther Deininger, pianist.

UNIVERSITY MEETINGS

1913

- Aug. 18—Dean David P. Barrows.
- Aug. 29—Mr. Walter MacArthur.
- Sept. 12—Professor H. Morse Stephens, Professor Herbert E. Bolton.
- Sept. 26—Dr. Milton T. Farmer, '09, Judge of the Superior Court of Kern County, California.
Charles D. Heywood, Mayor of Berkeley, California.
Music: The University Cadet Band.
- Oct. 10—Rev. Albert W. Palmer, '01, of Plymouth Congregational Church, Oakland.
George H. Mason, Registrar of Canterbury University College, University of New Zealand, and manager of the New Zealand All-Blacks football team.
Music: University of California Glee Club.
- Oct. 24—Dr. Werner Hegemann, German City Planning Expert.
Dr. B. P. Kurtz, Assistant Professor of English.
Music: University Mandolin Club.
- Nov. 7—John A. Stroud, '13.
Charles S. Wheeler, '84.
Farnham P. Griffiths, '06.
- Nov. 21—Professor Ramalinga Reddy, of the University of Mysore.
Rev. Raymond C. Brooks, Student Pastor of the Congregational Church.
- Dec. 5—University Chorus.
University Orchestra.
University Cadet Band.

1914

- Jan. 16—President Benjamin Ide Wheeler.
- Jan. 30—Judge W. W. Morrow, LL.D., of the United States Circuit Court of Appeals.
Music: The University of California Glee Club.

- Feb. 13—Dr. John Casper Branner, President of the Leland Stanford Junior University.
Music: Mr. George Bowden, Lecturer in Voice Culture.
- Feb. 27—Colonel R. H. Noble, Officer in Charge of Military Affairs, San Francisco.
Dr. Herbert C. Moffitt, Dean of the College of Medicine.
Music: Treble Clef Society.
- Mar. 13—Dr. James William White, Emeritus Professor of Surgery in the University of Pennsylvania.
George Sherwood Eddy, General Secretary of the Y. M. C. A. for Asia.
Music: Mandolin Club Quartette.
- Mar. 27—James L. Barton, D.D., Earl Lecturer for 1914.
John L. Myres, Sather Professor of Classical Literature.
Music: Women's Mandolin and Guitar Club.
- Apr. 10—Daniel Crawford, Missionary to Africa; author of "Thinking Black."
Music: University of California Cadet Band.
- Apr. 24—Kenneth Lester Blanchard. Miss Clotilde Grunsky.
Henry Cushman Breck. Roswell Gray Ham.
Miss Deborah Hathaway Dyer. Miss Jessie Winifred Harris.
Ralph Monroe Eaton. Frank William Rübke.
Howard Webster Fleming. Richard Caleb Shaw.
Mansel Penry Griffiths. The President-elect of the Associated Students.

COMPTROLLER'S FINANCIAL
STATEMENT

1913 - 1914

AUDITOR'S CERTIFICATE

The Finance Committee of the

Board of Regents of the University of California.

DEAR SIRs: The books and accounts of the University of California have been audited for the year ending June 30, 1914, and we certify that the Balance Sheet of June 30, 1914, the Statement of Income and Expenditures for the year ending June 30, 1914, and the accompanying Schedules are in accordance therewith, and, in our opinion, correctly exhibit the financial condition of the University.

The Investment securities have all been examined, and agree with the records.

The Income from the Trust Funds has been expended in accordance with the specified conditions of the various trusts.

McLAREN, GOODE & Co.,

Certified Public Accountants.

SAN FRANCISCO, CAL., November 21, 1914.

COMPTROLLER'S LETTER OF TRANSMITTAL

*The President and Regents of the
University of California,*

DEAR SIRs:

I beg to transmit herewith the annual financial statement of the business of the University of California for the year ending June 30, 1914.

The form of the present statement differs from the form used in previous years. Effort has been made to prepare the statement in clear and simple form, presenting all such facts as will be of interest to those in charge of the University's affairs and to the general public.

Respectfully,

RALPH P. MERRITT.

INCOME AND EXPENDITURES

FROM JULY 1, 1913 TO JUNE 30, 1914

INCOME

Schedule

No. 1.	Building Funds, etc., for specific purposes, not yet expended	274,169.
No. 2.	United States appropriations	80,000.00
No. 3.	State Appropriations	1,574,376.29
No. 4.	Students' Fees	144,685.45
No. 5.	Clinics of Hospitals and Infirmary	52,435.11
No. 6.	Sales of Agr. Dept., etc.	177,537.04
No. 7.	Income from Investments	279,003.06
No. 8.	Gifts:	
	For Current Use.....	91,887.50
	“ Buildings and Improvements	29,906.24
	“ Endowments	69,627.27
	Total Fiscal Income	2,499,457.9
	Deficit for the year.....	19,546.2
		<u>\$2,793,173.7</u>

EXPENDITURES

Schedule

No. 9. New Buildings and Improvements	395,677.69
No. 10. Administration Maintenance and Operation	333,255.21
No. 11. Education and Research	1,473,425.06
No. 12. Expenditures of Agricultural Department Receipts	157,269.38
No. 13. Scholarships, Prizes and Class Funds	23,469.43
Interest paid to Endowment Pool	30,504.14
Total Fiscal Expenditures.....	2,413,600.91
No. 14. Building Funds, etc., for specific purposes, not yet expended	299,846.22
Additions to Endowment Funds.....	79,726.61
	<u>\$2,793,173.74</u>

[Schedule No. 1]

INCOME AND EXPENDITURES PRIOR TO JUNE 30, 1914, BROUGHT
FORWARD

Income:

State appropriations	\$1,396.52	
Agricultural Department sales	23,787.53	
Fund interest accounts	35,679.52	
Donations	11,284.91	
Permanent Building Fund	10,309.92	
Miscellaneous	2,157.54	
J. K. Sather Fund for Campanile	217,767.21	
University Hospital Building Fund	35,319.11	
	<hr/>	\$337,702.26

Less expenditures:

Construction accounts	61,449.24	
Scholarships and prizes	2,083.45	
	<hr/>	63,532.69
		<hr/>
		\$274,169.57
		<hr/>

[Schedule No. 2]

INCOME FROM UNITED STATES

Adams Fund	\$15,000.00
Hatch Fund	15,000.00
Morrill College Aid Fund	50,000.00
	<hr/>
	\$80,000.00
	<hr/> <hr/>

[Schedule No. 3]

STATE APPROPRIATIONS

1913 APPROPRIATIONS

State University Fund:

For general purposes	\$650,274.22	
Scholarships	3,500.00	
Permanent buildings	217,924.74	
	<hr/>	\$871,698.96
General support		\$199,999.92
Restoration of income		31,000.00
Los Angeles Medical Department equipment		16,373.89
Los Angeles Medical Department maintenance		10,623.15
Scripps Institution of Biological Research		7,375.00
Lick Observatory earthquake replacement		50,000.00
Insecticide and Fungicide Control, 1913		4,017.81
Agriculture		314,073.21
University Farm classroom and library		8,689.60
University Farm dining hall additions		9,636.41
University Farm dormitory		28,250.31
University Farm small buildings		18,116.80

1911 APPROPRIATIONS

University Farm buildings	\$1,258.72
University Farm equipment	188.93
University Farm implements	182.01
University Farm livestock	1,957.74
Buildings and lands at Riverside	839.96
Southern California Pathological Laboratory equipment	93.87
	<hr/>
	<u>\$1,574,376.29</u>

NOTE.—The above amounts have been received, or are receivable, from the State Treasurer. In some cases the full amount of the appropriation has not been utilized, and in a few cases amounts represent the balances of appropriations of the 1911 Session of the Legislature.

[Schedule No. 4]

STUDENT FEES AND DEPOSITS

Agriculture	\$900.36
Agriculture, Summer Session, July, 1913	14.50
Anatomy	15.50
Astronomy	355.00
Bacteriology	1,694.36
Botany	1,585.00
Changing courses	1,774.00
Civil Engineering	3,515.38
Chemistry	15,006.58
Delayed registration	1,331.00
Diplomas	30.00
Mechanics	2,267.60
Gymnasium suits	264.89
Mineralogy	339.75
Mining	889.80
Music	6.00
Non-resident	6,565.00
Physics	5,697.75
Physiology	367.50
Special examinations	2,095.00
Zoology	1,366.93
History I	775.25
Appointment Secretary letter fee	523.71
University Extension	11,701.35
University Extension Dentistry	1,167.50
Gymnasium fees	19,130.40
Medical Department, San Francisco	18,974.12
Medical Department, Los Angeles	510.00
Students' Infirmary	31,298.10
Dentistry	14,523.12
	<hr/>
	\$144,685.45

[Schedule No. 5]

CLINICS OF HOSPITALS AND INFIRMARY

Medical Department, Los Angeles	\$2,921.97
Students' Infirmary	6,612.25
University Hospital, San Francisco	34,578.17
Dentistry	8,322.72
	<hr/>
	\$52,435.11
	<hr/> <hr/>

[Schedule No. 6]

DEPARTMENTAL SALES, ETC., RECEIPTS

Agricultural:

Citrus	\$281.62	
Dairy	14,529.64	
Dairy certification, Alameda	2,073.25	
Dairy certification, San Francisco	1,721.65	
Entomology	12.80	
Fertilizer Control	11,164.70	
Floriculture	55.00	
Hog cholera serum	27,862.78	
Imperial	69.08	
Insecticide and Fungicide registrations	9.00	
Kearney Experiment Station	344.29	
Official advanced registry tests	3,968.83	
Plant Pathology	88.50	
Viticulture	164.82	
Veterinary	1,523.45	
Soil Survey	105.70	
University Farm income	100,598.25	
		\$164,573.36

Various:

Library fines	1,129.00	
Sale of wood, boxes and junk	157.55	
Certified copy of patent	5.00	
Sale of publications	3,372.28	
Academy of Pacific Coast History	5.60	
Sale of houses	1,791.60	
Deposit forfeited	200.00	
Refund of items charged off	265.00	
Interest on Dairy cash balances	2,383.99	
Interest on Students' Infirmary notes	46.68	
Rent of cottages and lands	2,420.57	
Music and Dramatic	828.67	
Sale of "A Brief Account of Lick Observatory"	9.00	
Sale of Keeler volume	12.11	
Sale of syllabi	281.60	
Sale of "Zoe"	9.80	
Sale of Tebtunis Papyri	45.23	
		12,963.68
		\$177,537.04

[Schedule No. 7]

INCOME FROM INVESTMENTS

Income from Endowment Pool investments:

Mortgage interest	\$85,613.37	
Bond interest	60,185.00	
Dividends on stock	5,716.00	
Rents	\$41,007.48	
<i>Less</i> expenses	1,384.64	
	<hr/>	39,622.84
F. M. Smith collateral loan	409.24	
Refund from Hospital Building Fund	69.11	
Interest on Hooper Fund expenditures	4,604.00	
Interest on Permanent Building Fund	17,203.17	
Interest on moneys under-invested	13,300.97	
	<hr/>	\$226,723.70

Income from investment of funds not included
in Endowment Pool:

Jucksch Endowment Fund	\$61.07	
W. D. Thompson Memorial Fund	3,149.65	
J. Clute Wilmerding Fund	3,848.27	
M. Kellogg Fellowship Fund	1,200.00	
F. Phelps Memorial Loan Fund	90.00	
Richardson Latin Translation Prize Fund ...	32.00	
Jane K. Sather Historical Library Fund	350.00	
Barbara Weinstock Lectureship Fund	378.06	
University Hospital Building Fund	500.00	
Doe Library Fund	2,460.00	
Interest on loans to students	210.31	
	<hr/>	12,279.36

Kearney Vineyard Income

40,000.00

\$279,003.06

[Schedule No. 8]

UNIVERSITY OF CALIFORNIA

GIFTS

For Current Use:

Mrs. Phoebe A. Hearst, architecture	\$1,000.00
Mrs. Phoebe A. Hearst, mining	1,000.00
Mrs. Phoebe A. Hearst, anthropology	1,707.50
Mrs. Phoebe A. Hearst, Phoebe A. Hearst Scholarships	2,400.00
Prof. Alexander Agassiz, zoology	122.70
Miss Annie M. Alexander, Museum of Verte- brate Zoology	9,010.24
Carnegie Foundation, for the advancement of teaching	15,047.78
Various students, dentistry	229.46
Prof. Chinard for Mr. Legallet, French lectures	60.00
H. C. Moffitt, hospital	2,643.73
Geo. L. Foote, music	100.00
A Friend, palaeontology	2,400.00
A Friend, physical culture	605.00
Miss Ellen B. Scripps, Institution for Bio- logical Research	13,500.00
Miss Ellen B. Scripps, publications	1,000.00
E. W. Scripps, Institution for Biological Re- search	1,500.00
Miss E. B. Scripps, library books, Scripps Institution	9,500.00
Anna A. Cassott, Students' Infirmary	5.00
Various patients, University Hospital	90.00
Mrs. E. A. Drexler, University Hospital	2,400.00
Raphael Weill, lectures	150.00
W. H. Crocker, observation of solar eclipse	5,800.00
Estate of D. O. Mills, Lick Observatory	10,000.00
Knights of St. Patrick, Library, Irish books..	100.00
State rivers and water supply, Australian scholarships	1,941.09
A Friend, Alumna scholarship	500.00
Levi Strauss & Co., Levi Strauss scholarships	5,250.00
Anna M. Tientjen, undergraduate scholarship	125.00
O. K. Cushing, Cushing prize	100.00
Bonnheim prize	250.00
Bryce Historical Essay prize	100.00

Carried forward \$88,637.50

[Schedule No. 8—Continued]

<i>Brought forward</i>	\$88,637.50	
Irving prize for cartooning	25.00	
Native Sons of the Golden West Fellowships	3,000.00	
Newman Hall Essay prize	100.00	
San Jose High School scholarship	125.00	
		91,887.50
For Buildings and Improvements:		
Mrs. Phoebe A. Hearst, grading around Mining Building	\$10,943.77	
Mrs. Phoebe A. Hearst, Hearst Hall alterations	885.47	
Miss E. B. Scripps, buildings at the Scripps Institution for Biological Research	16,500.00	
Class of 1914, drinking fountain	597.00	
Sundry subscriptions, Boalt Hall of Law	980.00	
		29,906.24
For additions to endowment funds:		
Class of 1897, loan fund	105.00	
Class of 1906, fund	300.00	
C. B. Porter, Dental Endowment Fund	100.00	
Estate of H. J. Du Bois, Helen Du Bois Endowment Fund	5,016.52	
Geo. V. Paysant, Medal Loan Fund	5.00	
F. W. Bradley, Mining Students' Loan Fund	1,000.00	
Napa Seminary Club, Napa Seminary Loan Fund	100.00	
Mrs. Edith P. Hambrook, Forestus Phelps Memorial Loan Fund	6,000.00	
San Joaquin Women's Clubs, San Joaquin Women's Clubs Loan Fund	124.00	
Alumnae Association of the Snell Seminary, Snell Seminary Loan Memorial Fund	300.00	
Alumni Association, Alumni Association Life Membership Fund	160.00	
Sundry subscriptions, University Hospital Building Fund	24,250.00	
Per Dr. G. F. Reinhart, Prytanean Hospital Fund	100.00	
Per Mrs. Emma Merritt, trustee, Special Senior Class Loan Fund	1,000.00	
Profit from sale of Menlo lands added to Cora Jane Flood Endowment Fund	31,066.75	
		69,627.27
		<u>\$191,421.01</u>

[Schedule No. 9]

NEW BUILDINGS AND IMPROVEMENTS

Buildings and Improvements in Berkeley:

Agriculture Hall	\$969.90
Agriculture Hall furnishings	3,259.92
Are line additions	45.02
Bath house and equipment	202.00
Botany Building alterations	892.06
Botany Building fire escapes	72.35
Budd Hall fire escapes	123.35
Boalt Hall furnishings	58.05
California Hall alterations	2,173.93
California Hall equipment	494.55
California Hall roof alterations	752.00
Chemistry Auditorium	92.10
Chemistry Building addition No. 2	2,440.08
Chemistry, new laboratory equipment	375.04
Civil Engineering Building, testing laboratory	1,145.94
Dam site borings	34.20
Doe Library Building	6.01
Doe Library furnishings	1,946.18
Domestic science alterations and equipment..	997.05
Drawing building	17,483.51
Drinking fountain	4.60
East Hall alterations	1,811.95
Faculty Club Building	2,500.00
Fertilizer Control Laboratory addition	2,095.96
Grading around Mining Building	10,770.87
Greek Theatre repairs	1,940.64
Greek Theatre chairs	3,300.00
Harmon Gymnasium alterations	863.42
Hearst Hall alterations	945.92
Hearst Hall Annex	2,944.73
Hearst Hall tennis courts	515.65
Infirmery Annex	1,893.51
Museum of Hygiene, re-wiring	86.99
Mining Building equipment	199.50
North Hall alterations	1,036.09
Nursery and tree planting:	
Nursery and propagation of plants and trees	2,715.80
Carried forward	\$67,188.87

[Schedule No. 9—Continued]

Brought forward	\$67,188.87	
Landscape gardening	34.49	
Tree planting and trail making east of Greek Theatre	2,633.70	
Pathology Building Annex	13,856.30	
President's House furnishings	330.15	
South Hall addition	217.83	
South Hall alterations	959.10	
Swimming pool pumping outfit	2,232.30	
Women's athletic field	39.86	
Women's swimming pool	91.55	
Watershed lands	800.73	
		88,384.88
Buildings and improvements at University Farm:		
Buildings	1,258.72	
Class room and library	8,689.60	
Dining hall additions	9,636.41	
Dormitory	28,250.31	
Small buildings	18,116.80	
		65,951.84
Buildings and improvements not in Berkeley:		
Affiliated Colleges, fire escapes	\$1,557.10	
Affiliated Colleges, medical department al- terations	196.85	
Museum of Vertebrate Zoology	1,405.35	
University Hospital, nurses' quarters	2,301.98	
Buildings and lands at Riverside	839.96	
Lick Observatory earthquake replacement...	1,279.50	
Southern California Pathological Laboratory	93.87	
University Hospital	4,000.00	
Scripps Institution for Biological Research...	15,068.44	
Los Angeles Medical Department	16,373.89	
		43,116.94
Sather Campanile		74,724.03
Fifth installment of the Ten Year Program:		
Agriculture Hall	20,000.00	
Doe Library furnishings	20,000.00	
Watershed lands	20,000.00	
		60,000.00
Barrow street property:		
Purchased during year 1912-1913 as a charge against the Permanent Building Fund for the year 1913-1914		63,500.00
		<u>\$395,677.69</u>

[Schedule No. 10]

ADMINISTRATION, MAINTENANCE, AND OPERATION

Administration salaries		\$49,736.50
Advisors	\$3,585.00	
Affiliated Colleges—repairs	2,037.09	
Affiliated Colleges—site	782.81	
Auditing	3,234.95	
Electric light and power, current repairs.....	1,964.24	
Electric light and power, maintenance and operative	39,600.00	
Equipment	3,279.71	
Examination of schools	2,561.83	
Expense	62,295.31	
Fuel	1,297.66	
Janitors	37,337.50	
Lectures	450.00	
Postage	4,446.43	
President's contingent	3,000.00	
Printing	8,931.97	
Publications	13,368.66	
Repairs	17,500.00	
Site improvement	17,500.00	
Stationery	2,325.33	
Telephone, telegraph and express	5,939.32	
Water	10,373.60	
Cash—overs and shorts	35.53	
		241,846.94
Students' gymnasium	12,008.64	
Students' Infirmary	\$28,338.13	
Students' Infirmary (Prytanean Fund)	1,062.30	
Students Infirmary (donations)	262.70	
	29,663.13	
		41,671.77
		\$333,255.21

[Schedule No. 11]

EDUCATION AND RESEARCH

Various departments at Berkeley:

Expenditures from general funds	\$701,180.00	
Expenditures from donations	52,258.83	
Expenditures from endowment funds	79,348.74	
Expenditures from Morrill College Aid Fund	22,500.20	
		<hr/>
		855,287.77

University Hospital:

Expenditures from general funds	53,369.72	
Expenditures from hospital receipts	34,578.17	
Expenditures from endowment pool income....	6,634.44	
Expenditures from various donations	5,232.87	
		<hr/>
		99,815.20

Agricultural departments:

Expenditures out of general funds	39,985.79	
Expenditures out of Adams Fund	15,000.00	
Expenditures out of Hatch Fund	15,000.00	
Expenditures out of Morrill College Aid Fund	27,499.80	
Expenditures out of state appropriations	321,479.07	
Expenditures out of donations	243.48	
		<hr/>
		419,208.14

University Extension	19,149.61
University Extension Dentistry	1,068.93
Lick Observatory	35,924.24
Los Angeles Medical Department.....	13,290.28
Scripps Institution for Biological Research....	24,178.70
Purchases of books out of donations and en- dowment funds	5,502.19
	<hr/>
	<hr/>

\$1,473,425.06

[Schedule No. 12]

DEPARTMENTAL SALES, ETC., EXPENDITURES

Agricultural:

Citrus	\$72.12
Dairy	13,573.80
Dairy certification, Alameda	1,972.11
Dairy certification, San Francisco	1,475.13
Fertilizer Control	12,147.45
Floriculture	55.31
Hog cholera serum	26,023.50
Imperial	29.50
Insecticide and Fungicide Registrations	196.66
Kearney Experiment Station	202.76
Official advanced registry tests	4,005.62
Plant Pathology	87.52
Viticulture	100.92
Veterinary	1,584.08
University Farm	95,742.90
	<hr/>
	\$157,269.38
	<hr/> <hr/>

[Schedule No. 13]

DISBURSEMENTS FROM CLASS FUNDS, SCHOLARSHIPS,
AND PRIZES

Australian Scholarship	\$1,828.34	
Phoebe A. Hearst Scholarship	2,400.00	
San Jose High School Scholarship	125.00	
State of California Scholarship	2,650.00	
Levi Strauss Scholarship	3,187.50	
A. M. Tientjen Scholarship	62.50	
W. R. Davis Scholarship	150.00	
J. M. Goewey Scholarship	201.66	
C. B. Houghton Scholarship	150.00	
A. S. Johnston Scholarship	175.00	
C. M. Jones Scholarship	6,840.00	
Paget Scholarship	75.00	
F. M. Pixley Scholarship	200.00	
S. Sanborn Scholarship	750.00	
H. Stebbins Scholarship	250.00	
W. D. Thompson Scholarship	3,000.00	
	<hr/>	22,045.00
Bonnheim Prize	250.00	
Bryce Historical Essay Prize	100.00	
Cushing Prize	100.00	
Emily C. Cook Prize	50.00	
Irving Prize	25.00	
Richardson Latin Translation Prize	75.00	
	<hr/>	600.00
Payments to class secretaries and others	620.32	
Medal	135.00	
Repayment out of Hospital Building Fund	69.11	
	<hr/>	824.43
		<u>\$23,469.43</u>

[Schedule No. 14]

INCOME AND EXPENDITURES PRIOR TO JUNE 30th, 1914,
CARRIED FORWARD

Income:

State appropriations	\$860.20	
Agricultural department sales	30,848.03	
Fund interest accounts	36,011.14	
Scholarships and prizes	298.30	
Donations	19,701.13	
Permanent Building Fund	11,275.97	
Miscellaneous	10,541.56	
J. K. Sather Fund for Campanile	143,043.18	
University Hospital Building Fund	56,704.37	
		<hr/>
		309,283.88

Less expenditures:

Construction accounts	9,437.66	
		<hr/>
		\$299,846.22
		<hr/> <hr/>

STATEMENT OF TOTAL DEFICIT

Deficit for the year ending June 30, 1914	\$19,546.21
Deficit to June 30, 1913	198,759.37
	<hr/>
	218,305.58
Less Turner mortgage recovery	60,434.88
	<hr/>
Total deficit as at June 30, 1914	\$157,870.70
	<hr/> <hr/>

STATE UNIVERSITY FUND

STATEMENT OF EXPENDITURES FROM THE "STATE UNIVERSITY FUND" FOR
THE YEAR ENDING JUNE 30, 1914.

Administration

Salaries	\$94,058.10	
Expense	62,359.64	
Affiliated Colleges repairs and maintenance of grounds	2,844.65	
Auditing	3,234.95	
Equipment	3,279.71	
Examination of schools	2,561.83	
Fellowships	3,800.00	
Fuel	1,297.66	
Lectures	450.00	
Light, power and heating system	42,636.66	
Postage	4,476.03	
Printing (Administrative)	9,818.75	
Publications	13,782.92	
Repairs	21,171.65	
Site improvement and maintenance	21,117.75	
Stationery	2,326.98	
Telephone, telegraph, and express	6,881.78	
Water	10,981.11	
		\$307,080.17
University Library		76,467.46
Bancroft Library		8,416.04

Departmental expenditures:

Chemistry	\$51,146.33	
Civil Engineering	29,523.93	
Domestic Science	7,128.65	
Drawing	10,082.75	
Hygiene	8,977.79	
Lick Observatory	30,635.16	
Mechanics	28,966.08	
Mining	17,090.42	
Palaeontology	7,399.76	
Pathology	22,597.44	
Philosophy	8,744.34	
Physical Culture	9,767.34	
Physics	26,250.56	
		258,310.55
State of California Scholarships		3,500.00
Permanent Building Fund		217,924.74
		\$871,698.96

CASH RECEIVED

August, 1913	\$400,000.00	
December, 1913	200,000.00	
January, 1914	271,698.96	
		871,698.96

PERMANENT BUILDING FUND

Made up of one-fourth of State University Fund and to be used for permanent improvements.

Balance carried forward from June 30, 1913	\$10,309.92
One-quarter of State University Fund	217,924.74
Expenditures on construction work during the year 1913-14, charged to this fund:	
Affiliated Colleges—Fire escapes..	\$1,557.10
Affiliated Colleges—Medical De- partment alterations	196.85
Arc line additions	45.02
Botany Building alterations	892.06
Botany Building fire escapes	72.35
Budd Hall fire escapes	123.35
California Hall alterations	2,173.93
California Hall equipment	494.55
California Hall roof alterations...	752.00
Chemistry Auditorium	92.10
Chemistry Building addition No. 2	2,440.08
Civil Engineering Testing Labora- tory	1,145.94
Dam site borings	34.20
Domestic Science alterations and equipment	997.05
Drawing Building	17,483.51
East Hall alterations	1,811.95
Faculty Club Building annex.....	2,500.00
Harmon Gymnasium alterations...	863.42
Hearst Hall alterations (excess over donation)	60.45
Hearst Hall annex	2,944.73
Hearst Hall tennis courts	515.65
Landscape gardening	34.49
Lick Observatory earthquake re- placement	6,448.58
Museum Vertebrate Zoology alter- ations	1,405.35
Museum Hygiene rewiring	86.99
North Hall alterations	1,036.09
<i>Carried forward</i>	\$46,207.79
	\$228,234.66

PERMANENT BUILDING FUND—(Continued)

<i>Brought forward ..</i>	\$46,207.79		\$228,234.66
Nursery and propagation of plants and trees	2,715.80		
Pathology Building annex	13,856.30		
South Hall addition	217.83		
South Hall alterations	959.10		
Tree planting and train making....	2,633.70		
University Hospital Nurses' Quar- ters	2,301.98		
Women's athletic field	39.86		
Agriculture Hall furnishings	3,259.92		
Boalt Hall furnishings	58.05		
Chemistry—New laboratory equip- ment	375.04		
Greek Theatre chairs	3,300.00		
President's House furnishings	330.15		
		\$76,255.52	
Expenditures on purchase of property, charged to this fund:			
Barrow street property		63,500.00	
Fifth installment of the Ten-Year Programme:			
Agriculture Hall Building	20,000.00		
Doe Library furnishings	20,000.00		
Watershed lands	20,000.00		
		60,000.00	
Interest on money borrowed from investment monies on hand:			
Half-year to December 31, 1913, at 5.323459288—%	8,748.74		
Half-year to June 30, 1914, at 5.88106646—%	8,454.43		
		17,203.17	
Balance carried forward to 1914–1915		11,275.97	
		<u>\$228,234.66</u>	<u>\$228,234.66</u>

BALANCE SHEET

JUNE 30th, 1914

ASSETS

Schedule

	Real estate and improvements:		
A	Real estate in Berkeley	\$1,498,767.23	
B	Buildings and improvements in Berkeley	3,373,594.16	
C	Real estate and improvements not in Berkeley	3,099,554.25	
		<hr/>	7,971,915.64
	Equipment:		
	General	1,914,082.45	
	Bancroft Library	250,005.00	
		<hr/>	2,164,087.45
	Investments:		
	Notes receivable	1,368,623.60	
	Bonds	1,074,271.00	
	Stocks	100,552.00	
	Real estate held as investments..	2,498,347.15	
	Balance of contracts for sale of real estate	37,525.00	
	Realty Union of San Francisco certificate	6,000.00	
		<hr/>	5,085,318.75
	Suspense account, Montgomery avenue bonds (claim against the State of California)		21,999.00
	Departmental and other expenditures, carried forward		40,515.70
	Amounts due from the State of California under various appropriations		129,121.57
	Sundry debtors		68,252.18
	Cash on hand:		
	I. W. Hellman, Jr., Treasurer	\$131,188.39	
	Less Treasurer's advances	90,031.14	
		<hr/>	41,157.25
	Contingent funds	20,970.00	
	Well, Fargo & Co. deposit	200.00	
	Departmental cash on hand	4,643.86	
		<hr/>	66,971.11
	Extra suspense account		4,381.10
	Revenue deficit		157,870.70
			<hr/>
			<u>\$15,710,433.20</u>

BALANCE SHEET—(Continued)

LIABILITIES

Schedule

	University of California, Surplus invested in fixed assets	\$9,812,150.75
D	Endowment funds	5,540,263.92
	Gains in endowment pool investments	65,418.21
	Fund income accounts	35,401.39
	Donation accounts, unexpended balances	31,735.34
	Balances on hand to be used for specific purposes..	117,727.39
	Sundry creditors	96,460.23
	Permanent Building Fund	11,275.97
		<hr/>
		\$15,710,433.20
		<hr/>

[Schedule A]

REAL ESTATE IN BERKELEY

University Campus site	\$1,000,000.00
Hearst Hall and Hearst Cottage site	7,000.00
Hillegass Tract site	194,991.04
Palmer house site	17,500.00
Barrow street property	63,500.00
Watershed lands	168,456.61
Sylvan way property	15,395.00
Sylvan way and College avenue (buildings and lands)	31,924.58
	<hr/>
	\$1,498,767.23
	<hr/>

[Schedule B]

BUILDINGS AND IMPROVEMENTS IN BERKELEY

Acid house	\$480.00
Agricultural Building (Budd Hall)	7,200.00
Agriculture Hall	212,883.85
Anatomical Library and Printing Office	6,400.00
Architectural Building	23,377.53
Bacon Library Building	60,515.74
Bacteriological Laboratory	480.00
Barns	2,000.00
Boalt Hall of Law	159,287.61
Botany Building	5,600.00
California Field	20,000.00
California Hall	271,711.33
Campanile	81,956.82
Carpenters' shop (building and machinery)	4,033.19
Cement sidewalks	596.25
Chemistry Auditorium	36,314.67
Chemistry addition no. 2 (new)	2,440.08
Chemistry Building	81,000.00
Chemistry storehouse	10,426.03
Cinder path	1,000.00
Civil Engineering Hall	38,582.61
Civil Engineering Laboratory	2,400.00
Civil Engineering Testing Laboratory	9,336.08
Concrete bridge near Faculty Club	1,387.92
Concrete bridge near football statue	3,384.33
Concrete bridge at Sather Gate	10,922.86
Conservatory	10,800.00
Dairy barn	2,400.00
Dairy milk house	4,160.60
Dairy manure pit	1,031.15
Drawing Building	17,483.51
East Hall	18,000.00
Entomological Laboratory	2,569.99
Faculty Club Building	12,000.00
Fertilizer Control Laboratory	16,711.25
Girton Hall	4,032.34
Greek Theatre	45,000.00
Harmon Gymnasium	50,181.89
Hearst Hall	38,923.03
Hearst Memorial Mining Building	644,400.00
Hog pens, Strawberry Cañon	4,205.36
Carried forward	\$1,925,616.02

[Schedule B—Continued]

<i>Brought forward</i>		\$1,925,616.02
Hygiene and Pathology Building		38,896.32
Landscape Gardening		3,118.85
Mechanics' Building		61,025.00
John Mitchell Monument		358.95
Museum Building		3,667.77
New permanent roads		78,914.99
North Hall		20,000.00
Nursery and propagation house		1,500.00
Philosophy Building		8,000.00
Plant houses		700.00
Platform scales		350.00
Power, Light and Heat Plant:		
Power House (building and machinery)	\$73,421.29	
Heating system	42,347.16	
Electric construction on campus	9,430.68	
Workshop for Electric Light and Power De- partment	1,040.40	
		<hr/> 126,239.53
President's House		113,868.35
Rifle range		501.90
Sather Gateway		35,797.16
Senior Hall		4,676.98
Shops, carpenter, painter, etc.		1,200.00
South Hall		126,000.00
South Hall addition		5,681.63
Rudolph Spreckels Physiological Laboratory		25,000.00
Storehouse (general)		728.43
Storehouse (grounds and buildings department)		635.53
Strawberry Cañon Weir		569.80
Students' Infirmary and Annex		26,369.74
Students' Observatory		8,500.00
Swimming tank		17,200.00
Tennis Courts, Hillegass tract		21,970.89
Tool house, Botany Garden		282.90
Trunk sewer		6,356.10
University Library		683,443.01
Viticultural Laboratory		400.00
Zoology, Museum of Vertebrate		15,094.31
Dwellings rented:		
Palmer house		2,500.00
University cottages		8,400.00
		<hr/> <hr/> \$3,373,594.16

[Schedule C]

REAL ESTATE AND IMPROVEMENTS NOT IN BERKELEY

Affiliated Colleges in San Francisco	\$405,707.74	
San Francisco Institute of Art	235,150.00	
Wilmerding School:		
New buildings	\$52,155.87	
Old buildings	24,906.46	
Real estate	61,347.80	
		138,410.13
Lick Observatory, land, buildings and equipment:		
Lands, buildings and equipment	610,000.00	
Barn	1,254.95	
Dormitory and cottages	55,169.08	
Electric light and power plant	11,060.23	
Tank	2,701.00	
Vault	19,834.70	
Lands: Cook tract	960.00	
Duckworth tract	316.42	
Hartzoke tract	262.73	
Holden tract	511.25	
		702,616.36
Pacific Grove:		
Real estate of Herzstein Seaside Laboratory		2,500.00
University Farm, Davis:		
Lands and buildings		395,199.89
Buildings in East Oakland (for hog serum plant)		4,519.73
Southern California Pathological Laboratory:		
Buildings and land at Riverside	25,000.00	
Buildings at Whittier	12,821.31	
		37,821.31
Imperial Valley:		
Buildings at Meloland		3,021.53
Kearney Estate, Fresno		1,000,000.00
Los Angeles Medical Department:		
Lands, buildings and equipment	100,000.00	
Hospital buildings	24,999.70	
		124,999.70
Scripps Institution:		
Buildings at La Jolla		13,025.20
Other real estate:		
Congressional lands	11,818.27	
Public building lands	800.00	
Potrero avenue lots	10,364.39	
Real estate in Tulare County	9,600.00	
		32,582.66
University Hospital Building (initial cost of plans)		4,000.00
		<u>\$3,099,554.25</u>

[Schedule D]

ENDOWMENT FUNDS

Alumnae of the Y. W. C. A. of University of California Fund	\$600.00
Alumni Association Life Membership Fund	4,150.54
Alumni Hall Fund	10,224.50
Alumnus Book Fund	4,172.76
Class of 1874 Library Fund	52.91
Class of 1881 Loan Fund	1,138.90
Class of 1886 Loan Fund	4,842.05
Class of 1887 Library Fund	440.00
Class of 1895 Loan Fund	694.65
Class of 1897 Library Fund	105.08
Class of 1897 Loan Fund	1,156.30
Class of 1898 Loan Fund	212.92
Class of 1900 Library Fund	628.50
Class of 1902 Library Fund	125.00
Class of 1903 Loan Fund	1,128.40
Class of 1905 Fund	80.66
Class of 1906 Fund	300.00
Class of 1907 Permanent Endowment Fund	500.00
Class of 1907 Permanent Endowment Fund	150.00
Class of 1908 Fund	224.98
Class of 1909 Endowment Fund	600.00
Class of 1909 Loan Fund	1,200.00
Class of 1910 Endowment Fund	1,350.00
Class of 1911 Class Fund	1,000.00
Class of 1911 Loan Fund	758.72
Class of 1912 Fund	1,900.00
Philo Sherman Bennett Prize Fund	609.91
P. Chas. Cole Scholarship Fund	2,524.88
Therese F. Colin European Fellowship Fund	10,961.94
Consolidated Perpetual Endowment Fund	2,062,692.18
Emily Chamberlain Cook Prize Fund	1,166.72
W. R. Davis Scholarship Fund	5,000.00
E. A. Denicke Library Fund	2,000.00
E. A. Denicke Loan Fund	5,742.81
Dental Endowment Fund	5,561.88
Doe Library Fund	78,673.12
Helen Du Bois Endowment Fund	5,016.52
Cora Jane Flood Endowment Fund	377,549.02
James M. Goewey Scholarship Fund	12,415.50
<i>Carried forward</i>	<u>\$2,607,651.35</u>

[Schedule D—Continued]

<i>Brought forward</i>	\$2,607,651.35
Grubstake "W" Loan Fund	403.06
Hamerslag Loan Fund	6,000.00
Hesse Memorial Scholarship Fund	3,800.00
Chas. M. Hitchcock Endowment Fund	10,000.00
George Williams Hooper Endowment Fund	1,000,000.00
Cornelius B. Houghton Scholarship Fund	3,000.00
Samuel C. Irving Prize Fund	500.00
Albert Sidney Johnston Memorial Scholarship Fund	3,500.00
Carrie M. Jones Scholarship Fund	100,000.00
Juckseh Endowment Fund	600.00
Kearney Bequest	840.57
Martin Kellogg Fellowship Endowment Fund	20,000.00
Leona Lebus Endowment Fund	4,000.00
Le Conte Memorial Fellowship Fund	10,026.47
Lick Observatory Fund	90,018.16
Loan Fund No. 2	200.00
John W. Mackay, Jr., Endowment Fund	100,000.00
Massachusetts Relief Fund Endowment	100,000.00
Medal Loan Fund	317.29
Men's Dormitory Fund	435.45
Eugene Meyer, Jr., Endowment Fund	2,000.00
D. O. Mills Endowment Fund	167,962.80
Mining Students' Loan Fund	1,011.68
Napa Seminary Loan Fund	527.39
Paget Scholarship Fund	3,009.09
Frank M. Pixley Scholarship Fund	3,563.22
Forestus Phelps Memorial Loan Fund	6,000.00
Prytanean Hospital Fund	148.13
Michael Reese Library Fund	50,000.00
Richardson Latin Translation Prize Fund	1,600.00
Herman Royer Endowment Fund	4,336.41
Sheffield Sanborn Scholarship Fund	15,000.00
San Joaquin Women's Clubs Loan Fund	126.92
Jane K. Sather Fund for Campanile and bells (unexpended balance)	143,043.18
Jane K. Sather Classical Chair Fund	110,885.51
Jane K. Sather Historical Chair Fund	104,686.33
Jane K. Sather Historical Library Fund	12,461.68
Jane K. Sather Law Library Fund	21,543.35
Jane K. Sather Library Fund	10,000.00
<i>Carried forward</i>	\$4,719,198.04

[Schedule D—Continued]

<i>Brought forward</i>	\$4,719,198.04
Jane K. Sather Fund, awaiting distribution	67,341.20
Snell Seminary Loan Fund	302.62
Special Senior Class Loan Fund	1,076.16
Horatio Stebbins Scholarship Fund	4,000.00
Students' Co-operative Society Fund	12,432.13
Summer Session Endowment Fund	6,000.00
Willard D. Thompson Memorial Fund	55,141.98
Edward Thompkins Endowment Fund	106,829.09
University Hospital Endowment Fund	649.68
University Hospital Building Fund	56,704.37
University Hospital Endowment Fund (J. B. Reinstein)....	1,000.00
University Hospital Endowment Fund (S. F. Maternity)....	10,000.00
University Medal Fund	3,896.00
Veltin Endowment Fund	1,000.00
F. J. Walton Memorial Loan Fund	6,692.96
Barbara Weinstock Lectureship Fund	6,687.93
Whiting Fund	25,000.00
J. Clute Wilmerding Endowment Fund	449,000.00
Women's Dormitory Fund	2,311.76
Y. W. C. A. Endowment	5,000.00
	<hr/>
	<u>\$5,540,263.92</u>

STATISTICS OF THE INFIRMARY

COMPILED BY THE UNIVERSITY PHYSICIAN

MEDICAL EXAMINATION OF INTRANTS, 1913-14

MEN

Number examined, 1251

Abdomen, abnormal	272	Optic neuritis	1
Hernia	235	Porus opticus, present	623
Liver, palpable	7	Right	53
Spleen, palpable	21	Left	9
Prominent	7	Porus opticus, absent	565
Rigid	1	Strabismus	17
Relax	1	Opaque nerve fiber	2
Chest, abnormal	237	Feet—	
Barrel	89	Longitudinal arches—	
Flat	91	Low	337
Funnel	26	Flat	217
Pigeon	26	Anterior arches—	
Harrison's grooves	5	Low	487
Ears, abnormal	357	Abnormally high	2
Cerumen	146	General development—	
Chronic suppuration	3	Excellent	44
Tube tympanic catarrh	208	Good	585
Eyes—		Fair	502
Hypermetropia	169	Poor	120
Simple hyp. astigmatism	185	Genitalia, abnormal	323
Compound hyp. astigmatism	71	Penis, abnormal	302
Myopia	317	Circumcision	280
Simple myopia astigmatism	333	Hypospadias	6
Compound myopia astigmatism	169	Phymosis	16
Mixed astigmatism	95	Testes, abnormal	21
Amaurosis	4	Atrophy, traumatic	4
Anisocoria	1	Bubonocoele	1
Aphakia	1	Epididymitis	1
Atrophy, muscles	2	Hydrocele	3
Blepharitis marginitis	39	Left, enlarged	2
Cataract, traumatic	2	Right, enlarged	5
Chalazion	1	Undescended	5
Chorio-retinitis	3	Heart, abnormal	54
Color blind	23	Arythema	5
Conjunctivitis	8	Enlarged	3
Disc, blurred	18	Intermittent	1
Heterophoria	18	Irregular	4
Nystagmus	1	Systolic murmur at apex	41

MEDICAL EXAMINATION OF INTRANTS, 1913-14—*Continued*

MEN

Knee jerk, abnormal	9	Eczema	4
Right, exaggerated	4	Hyperaemia	1
Left, exaggerated	3	Psoriasis	2
Right and left, exaggerated..	2	Scabies	1
Larynx, abnormal	3	Seborrhoea	115
Lungs, abnormal	10	Tenia versicolor	2
Lymph Nodes	33	Urticaria	6
Cervical	4	Teeth—	
Axillary	8	Good	902
Inguinal	58	Fair	282
Mammary glands, supernumary	41	Poor	52
Nutrition—		Neglected	9
Thin	417	False	6
Average	806	Throat, abnormal—	
Obese	28	Tonsils—	
Nose—		Absent	48
Crusts	53	Buried	41
Ozoena	1	Pathological	198
Rhinitis—		Projecting	29
Atrophic	4	Befurcated uvula	1
Chronic catarrhal	102	Thyroid—	
Hypertrophic	140	Enlarged	40
Turgescence	2	Palpable	8
Polyps	2	Vaccinated: No visible scar—	
Septum, spur	333	Never vaccinated	181
Septum, deviations	315	No visible scar	45
Naso pharynx, abnormal	103	Varicocele	153
Adenoids	9	Right	4
Chronic pharyngitis	94	Left	149
Skin, abnormal	800	Vertebral column—	
Acne—		Lordosis	4
Back	207	Kyphosis	13
Chest	93	Scoliosis	11
Face	298		
Shoulders	71		

HISTORY OF DISEASES PREVIOUS TO ENTERING COLLEGE

Adenitis, inguinal	2	Gonorrhoea	28
Alopetica areata	1	Hammer-toe	3
Amygdalitis	163	Hydrocele of cord	1
Anaemia	2	Influenza	23
Angioma, congenital—lip	1	Jaundice, catarrhal	2
Appendicitis	44	Malaria	124
Asthma	4	Measles	1084
Bronchitis	1	Mumps	694
Chancroid	4	Myocarditis	1
Chickenpox	601	Nephritis	1
Constipation	42	Neuritis	1
Diphtheria	73	Neurasthenia	11
Dysentery	1	Otitis media	36
Gastritis	1	Paralysis, facial	1

MEDICAL EXAMINATION OF INTRANTS, 1913-14—*Continued*

MEN

HISTORY OF DISEASES PREVIOUS TO ENTERING COLLEGE—(*Continued*)

Pleurisy	39	Pulmonary	3
Pneumonia	133	Spine	1
Rheumatism	59	Typhoid fever	126
Scabies	1	Anti-typhoid inoculation	4
Scarlet fever	189	Typhus fever	1
Smallpox	43	Varicose veins	4
Tuberculosis—		Whooping cough	720
Astragalus	1		

HISTORY OF OPERATIONS PREVIOUS TO ENTERING COLLEGE

Adenoidectomy	78	Leg—	
Adenectomy	14	Amputated	3
Ankle—		Cellulitis, operated for	1
Fracture, operated on	1	Operated on	1
Tubercular, operated on	1	Miscellaneous—	
Appendectomy	22	Asthma, operated for	1
Arm—		Stomach, operated on	1
Abscess, incised	1	Tumor, operated on	1
Amputated	2	Neck, tumor, operated on	1
Cystic tumor—scrotum	1	Cervical, abscess, incised	1
Ear—		Nose—	
Abscess	3	Miscellaneous operations	31
Mastoid	1	Sub-mucous	1
Miscellaneous	2	Penis—	
Eye—		Circumcision	264
Operated	1	Shoulder, operated on	1
Removed	1	Skull—	
Finger—		Frontal bone—punctured	1
Amputated	2	Operated on	1
Operated	2	Testicle, removed	2
Foot—		Thumb—	
Amputated	1	Cellulitis, operated for	1
Operated	2	Operated on	1
Forearm, radius, operated on	1	Thigh, operated on	1
Gall stones, operated for	1	Tibia, operated on	1
Haemorrhoidectomy	4	Toe—	
Hand—		Amputated	1
Cellulitis, operated for	1	Osteomyelitis, operated for	1
Metatarsal, operated on	1	Tonsillectomy	102
Operated on	1	Uvula—	
Herniotomy	15	Amputated	1
Jaw, operated on	2	Operated on	2
Knee, operated on	4	Varicose veins, operated for	1
Laminectomy	1	Varicocele, operated for	10
		Varicotomy	2

HISTORY OF INJURIES PREVIOUS TO ENTERING COLLEGE

Abdomen—		Ankle—	
Burn	1	Contused	7
Contused	1	Gunshot wound of	1
Hernia	13	Lacerated	1
		Sprained	31

MEDICAL EXAMINATION OF INTRANTS, 1913-14—*Continued*

MEN

HISTORY OF INJURIES PREVIOUS TO ENTERING COLLEGE—(*Continued*)

Arm—		Knee—	
Contused	1	Burned	1
Fractured	40	Contused	10
Paralysis	1	Dislocated	2
Forearm—		Sprained	2
Contused	1	Synovitis	1
Fractured	92	Leg—	
Back—		Abscess	1
Contused	3	Cellulitis	1
Gunshot wound of	1	Contused	7
Sprained	1	Fractured	28
Bladder, puncture wound of	1	Gunshot wound of	1
Brain, concussion of	2	Lacerated	1
Chest, contused	5	Periostitis, traumatic	1
Clavicle—		Nose—	
Contused	1	Contused	2
Fractured	35	Dislocated, cartilage	1
Ear, contused	1	Fractured	19
Elbow—		Ribs, fractured	7
Dislocated	7	Scapula, fractured	2
Sprained	1	Shoulder—	
Eye, contused	7	Burned	2
Face, contused	1	Contused	2
Finger—		Dislocated	4
Amputated	2	Sprained	5
Contused	8	Skull—	
Fractured	11	Contused	2
Gunshot wound of	3	Fractured	7
Lacerated	1	Sternum, fractured	1
Foot—		Testes—	
Abrasion	1	Contused	1
Burn	2	Orchitis, traumatic	1
Contusion	2	Thigh—	
Fractured	5	Contused	2
Gunshot wound of	2	Fractured	7
Sprained	2	Thumb—	
Hand—		Dislocated	2
Burned	1	Fractured	2
Contused	4	Lacerated	1
Metatarsus, fractured	3	Sprained	2
Hip—		Tibia, contused	1
Contused	1	Toe, fractured	1
Dislocated	1	Wrist—	
Sprained	1	Dislocated	2
Jaw, fractured	1	Contused	1
Kidney, contused	1	Sprained	12

MEDICAL EXAMINATION OF INTRANTS, 1913-14

WOMEN

Number examined, 887

Abdomen—		General development—	
Liver, palpable	25	Excellent	51
Right kidney	140	Good	610
Left kidney	33	Fair	196
Spleen	11	Poor	30
Chest, abnormal	123	Heart, abnormal	194
Flat	59	Mitral regurgitation	16
Funnel	7	Systolic mitral murmurs,	
Pigeon	57	non-transmitted	111
Ears, abnormal	205	Presystolic murmurs	3
Cerumen	95	Tricuspid murmurs	3
Tubo tympanic catarrh	110	Aortic murmurs	1
Eyes—		Dilated	6
Hypermetropia	135	Blood pressure above 130....	54
Simple hyp. astigmatism	112	Knee jerk, abnormal	2
Compound hyp. astigmatism	66	Right	1
Myopia	225	Left	1
Simple myopia astigmatism	177	Larynx, abnormal	28
Compound myopia astigmatism....	141	Chronic pharyngitis	24
Mixed astigmatism	64	Uvula, abnormal	1
Amblyopia	2	Adenoids—	
Aphakia	1	Large	1
Blepharitis	2	Small	2
Bifurcated uvula	1	Lungs, abnormal	14
Conjunctivitis	2	Lymph Nodes, enlarged	148
Cornea leucoma	1	Cervical	88
Disc, blurred	14	Axillary	2
Heterophoria	17	Inguinal	58
Myopic crescent	1	Menstrual disorders—	
Optic neuritis	3	Menses—	
Porus opticus, present	404	Irregular	72
Right	37	Scanty	17
Left	2	Profuse	13
Porus opticus, absent	446	Pain, severe	152
Presbyopia	1	Leucorrhoea	24
Strabismus	23	Nose—	
Opaque nerve fibers	1	Crusts	7
Feet—		Rhinitis—	
Longitudinal arches—		Atrophic	3
Low	405	Chronic catarrhal	27
Flat	105	Hypertrophic	56
Anterior arches—		Turgescence	1
Low	210	Septum, deviations	124
Flat	1	Spurs	211
Abnormal toes	1	Nutrition—	
Claw foot	1	Thin	157
Hammer-toe	12	Average	654
Short length, leg	3	Obese	76

MEDICAL EXAMINATION OF INTRANTS, 1913-14—*Continued*

WOMEN

Skin, abnormal	700	Neglected	23
Acne—		False	4
Back	227	Throat, abnormal—	
Chest	185	Tonsils—	
Face	148	Absent	42
Shoulders	58	Buried	23
Hypertrichosis	43	Projecting	18
Icthyosis	2	Pathological	129
Impetigo contagiosa	1	Thyroid—	
Keratosis pilaris	19	Enlarged	210
Lichen planus	2	Palpable	5
Psoriasis	3	Vaccinated: No visible scar—	
Seborrhoea eczema	10	Never vaccinated	129
Tinea versicoloris	1	No visible scar	44
Xeroderma	1	Vertebral column—	
Teeth—		Lordosis	24
Good	320	Kyphosis	49
Fair	408	Scoliosis	143
Poor	122		

HISTORY OF DISEASES PREVIOUS TO ENTERING COLLEGE

Abdominal inf.	1	Lumbago	1
Amygdalitis	317	Malaria	89
Anaemia	1	Measles	930
Appendicitis	16	Mumps	544
Asthma	9	Nephritis	4
Backache, constant	2	Neuralgia	5
Bladder trouble	2	Neuritis	2
Bronchitis	16	Neurasthenia	61
Chickenpox	604	Otitis media	69
Chorea	3	Pleurisy	44
Colitis	1	Pneumonia	119
Diphtheria	91	Ptomaine poisoning	3
Ear, deafness	1	Rheumatism	79
Erysipelas	3	Scarlet fever	203
Gastritis	6	Shingles	2
Glands, neck	1	Smallpox	23
Haemorrhage—		Spotted fever	1
Lungs	1	Stomach trouble	2
Stomach	1	Tuberculosis—	
Hay fever	1	Lungs	1
Heart trouble	5	Hip	2
Hysteria	2	Tumor, kidney	1
Indigestion	4	Typhoid fever	92
Infantile paralysis	1	Anti-typhoid inoculation	4
Influenza	10	Whooping cough	643
Intestinal trouble	1	Yellow fever	1
Jaundice	7	Miscellaneous	19

MEDICAL EXAMINATION OF INTRANTS, 1913-14—*Continued*

WOMEN

HISTORY OF OPERATIONS PREVIOUS TO ENTERING COLLEGE

Adenoidectomy	70	Mastoid	1
Ankle—		Maxilla—for removal of tooth	2
Operated on	3	Nose—	
Tendon cut	1	Operated on	23
Appendectomy	37	Septum resected	1
Arm, amputated	1	Neck—	
Breast, operated on	2	Gland	13
Coccyx, operated on	1	Tumor	1
Currettement, dilation and	13	Ovarian cyst	2
Ear, operated on	2	Ovarotomy	1
Eye, operated on	2	Pleurisy, aspirated after	1
Strabismus, operated for	1	Shoulder, operated on	1
Gall stones, operated for	1	Thigh, operated on	3
Goitre	3	Tonsillectomy	91
Grafting skin	1	Tonsilotomy	1
Haemorrhoidectomy	5	Turbinectomy	7
Herniotomy	3	Tumor—fibroid	2
Hip, operated on	2	Uvula, operated on	3
Knee, operated on	3	Vaginal operation	1
Leg—		Tumor removed	1
Amputated	1	Wrist, bursa removed	1
Operated on	2		

HISTORY OF INJURIES PREVIOUS TO ENTERING COLLEGE

Ankle—		Fractured	1
Sprained	28	Hernia	3
Arm—		Hip—	
Burn	1	Dislocated	2
Fractured	22	Fractured	2
Back, contused	4	Injured	2
Clavicle—		Knee, sprained	7
Fractured	18	Leg—	
Contused	3	Abscess	1
Coccyx, fractured	1	Fractured	9
Elbow—		Injured	3
Dislocated	4	Paralysis	1
Sprained	2	Miscellaneous	17
Face, contused	1	Nose, fractured	5
Finger—		Patella, chipped	1
Contused	1	Rib—	
Sprained	2	Dislocated	1
Foot—		Fractured	1
Contused	1	Shoulder, dislocated	4
Gunshot wound of	1	Skull, fractured	1
Forearm, fractured	14	Spine, sprained	2
Hand—		Ulua, fractured	1
Contused	1	Wrist—	
Infected	1	Sprained	4

CASES BY CLASSES, 1913-14—WOMEN

Diseases (International classification)	DISPENSARY PATIENTS					HOUSE PATIENTS					Total
	1917	1916	1915	1914	Grad. Spec.	1917	1916	1915	1914	Grad. Spec.	Total
I. GENERAL DISEASES:											
(International classification)											
1. Typhoid fever—	45	65	38	33	29	3	213				
Anti-typhoid inoculation											
4. Malaria				2					2	1	3
6. Measles		1							1		1
9. Diphtheria—											
Diphtheria carrier		1					2				2
19. Other epidemic diseases—											
Mumps	1	1	2	1			2	1	2	1	6
Vaccinia—											
Vaccinia	133	16	6	3	21	8	187				
Vaccinoid	36	7	7	3	21	3	77				
Reaction of immunity	10	4	1	1	5		21				
28. Tuberculosis of Lungs	1		1				2	1			1
46. Other tumors—											
Abdomen, op.										1	1
Cyst—											
Eyelid		1					1				
Sebaceous	1	2	1		2		6				
51. Goitre—											
Exophthalmic		1				1	2				
54. Anaemia	9	13	2	2	4		30				
55. Other general diseases—											
Obesity	1						1				
Purpura	1						1				
II. DISEASES OF THE NERVOUS SYSTEM:											
73. Neuralgia and neuritis—											
Hysteria	1	3		3	1		8	1		1	2
Neuralgia of—											
Facial		1	1				2				

CASES BY CLASSES, 1913-14—WOMEN—Continued

Diseases	DISPENSARY PATIENTS					Total	HOUSE PATIENTS					Total
	1917	1916	1915	1914	Grad. Spec.		1917	1916	1915	1914	Grad. Spec.	
Intercostal	2	...	2	...	1	5	...	...	...	...	...
Miscellaneous	4	8	3	2	4	1	22	...	...	...	...
Neuritis .....	...	1	2	1	1	5	...	...	...	...	...
74. Other diseases of the nervous system—												
Angiospastic oedema .....	...	...	...	1	...	1	...	...	...	...	...
Angioneurotic oedema	1	...	...	...	...	1	1	...	...	...	1
Neurasthenia	15	13	10	10	10	58	...	...	2	2	4
Oedema .....	...	...	...	1	1	2	...	...	...	...	...
Syncope	2	1	1	1	...	6	...	...	...	...	...
Vertigo	1	...	...	...	...	1	1	...	...	...	1
75. Diseases of the eyes and annexa												
a. Conjunctivitis, ac.	15	8	3	8	6	40	1	...	...	...	1
b. Astigmatism—												
Simple hyperopic	4	3	2	5	4	18	...	...	...	...	...
Compound hyperopic	8	7	4	2	4	25	...	...	...	...	...
Simple myopic	7	...	2	1	1	11	...	...	...	...	...
Compound myopic	6	7	1	1	...	16	...	...	...	...	...
Mixed	3	2	4	3	...	12	...	...	...	...	...
Anmetropia	1	...	...	...	...	1	...	...	...	...	...
Blepharitis marginatis .....	...	5	2	5	1	13	...	...	...	...	...
Esophoria	2	...	...	...	...	2	...	...	...	...	...
Exophoria	2	1	...	...	1	4	...	...	...	...	...
Eye strain	6	4	2	1	...	13	...	...	...	...	...
Foreign body .....	...	...	1	1	1	3	...	...	...	...	...
Hordeolum	2	2	4	4	4	16	...	...	...	...	...
Hypermetropia	5	1	1	2	1	11	...	...	...	...	...
Myopia	1	2	...	...	1	5	...	...	...	...	...
Presbyopia .....	...	...	...	...	...	1	...	...	...	...	...
76. Diseases of the ears—												
Cerumen, accum. of	24	5	3	1	11	3	47	...	...	...	...

CASES BY CLASSES, 1913-14—WOMEN—Continued

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1917	1916	1915	1914	Grad. Spec.	Total	1917	1916	1915	1914 Grad. Spec. Total
87. Diseases of the larynx—										
Laryngitis	35	17	16	12	11	2	93			
88. Diseases of the thyroid body—										
Adenitis, cervical	1	...	2	1	...	...	4			
Hypertthyroidism	9	3	...	1	2	1	16	2		2
89. Bronchitis, acute—										
Bronchitis	1	2	1	3	1	...	8	1	2	3
Tracheitis	43	19	16	14	11	3	106	2	2	3
91. Broncho pneumonia				1	...	...	1	2	1	1
93. Pleurisy	2	...	...	...	...	...	2	1	1	2
96. Asthma		1	...	...	...	1	2	...	...	...
V. DISEASES OF THE DIGESTIVE SYSTEM:										
99. Diseases of the mouth and annexa—										
a. Abscess, alveolar	1	2	1	1	...	...	5			
Caries	2	...	1	...	...	...	3			
Gingivitis	1	1	...	2	...	...	4			
Pyorrhoea alveolaris	1	...	...	...	...	1	2			
b. Stomatitis	5	1	...	4	1	1	12			
100. Diseases of the pharynx—										
Amygdalitis, ac.	38	38	27	21	8	...	132	4	2	1
Amygdalitis, follic.	1	1	...	...	1	1	4	2	...	1
Amygdalolith	1	...	...	...	...	...	1			
Hypertrophy of tonsil	2	...	...	...	1	...	3			
Hypertrophy of tonsil, op.								4	1	1
Pharyngitis, ac.	100	77	66	70	31	8	352	1	2	2
Pharyngitis, chr.	2			1	...	...	3			
Tonsillar abscess		1	...	...	1	...	2	...	1	...
Vincent's angina .....			...	...	...	...		...	...	1

CASES BY CLASSES, 1913-14—WOMEN—Continued

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1917	1916	1915	1914	Grad. Spec.	Total	1917	1916	1915	1914 Grad. Spec. Total
103. Other diseases of the stomach—										
Atonic dyspepsia .....	...	...	1	...	...	1	...	...	...	...
Fermentation, gastric	4	3	1	4	2	1	...	...	...	...
Gastritis	1	2	1	2	...	6	...	...	...	...
Hyperchlorhydria .....	...	...	...	1	...	1	...	...	...	...
Nervous dyspepsia	4	...	2	1	1	8	...	...	...	...
Regurgitation of stomach	1	...	...	...	...	1	...	...	...	...
105. Diarrhoea and enteritis—										
Colitis	2	2	1	...	2	7	...	2	...	1
Enteritis	5	3	1	1	1	11	...	1	...	3
Fermentation, intest.	8	10	3	12	6	39	...	...	...	...
Gastroduodenitis	35	36	22	14	14	122	...	1	3	...
Gastroenteritis	3	...	1	...	...	4	...	...	...	...
107. Intestinal parasites .....	...	...	1	...	...	1	...	...	...	...
108. Appendicitis, ac.	3	5	1	...	...	9	4	4	2	1
Appendicitis, chr. ....	...	3	...	1	1	5	...	...	...	...
Appendicitis, op. for .....	...	...	...	...	...	...	3	...	...	3
109. Hernia .....	...	...	...	...	1	1	...	...	1	1
110. Other diseases of the intestines										
Auto-intoxication .....	...	3	...	...	...	3	...	...	...	...
Constipation, ac.	24	17	24	18	10	96	...	...	...	...
115. Other diseases of the liver—										
Biliousness .....	...	...	2	...	...	2	...	...	...	...
117. Simple peritonitis—										
Adhesion of peritoneum .....	...	...	...	1	...	1	...	...	...	...
VI. NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA:										
119. Nephritis, acute	1	1	2	...	1

CASES BY CLASSES, 1913-14—WOMEN—Continued

STATISTICS OF THE INFIRMARY

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Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS					Total
	1917	1916	1915	1914	Spec.	1917	1916	1915	1914	Spec.	Total
122. Other diseases of the kidneys and annexa—											
Nephroptosis	1	2	....	....	....	....	1	....	....	....	1
124. Diseases of the bladder—											
Cystitis .....	....	1	1	1	....	....	....	1	....	....	1
128. Uterine hemorrhage (non- puerperal)—											
Menorrhagia	2	2	....	....	....	....	....	....	....	....	....
Metrorrhagia	5	3	1	1	....	....	....	1	....	....	1
Uterine haemorrhage (curet- tage) .....	....	....	....	....	....	....	2	....	....	....	2
130. Other diseases of the uterus—											
Amenorrhoea	21	4	3	2	4	....	....	....	....	....	34
Anteflexion, uterus .....	....	1	2	....	....	....	....	....	....	....	3
Dysmenorrhoea	26	28	10	16	5	1	....	....	....	....	86
Endocervicitis .....	....	....	....	1	....	....	....	....	1	....	1
Erosion, cervix .....	....	1	1	....	....	....	....	....	....	....	2
Leucorrhoea	2	3	1	2	1	....	....	....	....	....	9
Prolapsus, uterus	1	....	2	2	....	....	....	....	....	....	5
Retroversion .....	....	....	1	1	....	....	....	....	....	....	2
132. Salpingitis and other diseases of the female genital organs—											
Ovaritis .....	....	....	1	....	....	....	....	....	....	....	1
VII. THE PUERPERAL STATE:											
134. <i>a.</i> Accidents of pregnancy—											
Pregnancy	1	....	....	....	....	....	....	....	....	....	1
VIII. DISEASES OF THE SKIN:											
143. Furuncle—											
Arm	2	....	1	1	....	....	....	....	....	....	4
Axilla	1	1

CASES BY CLASSES, 1913-14—WOMEN—Continued

STATISTICS OF THE INFIRMARY

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Diseases	1917					1916					1915					1914					Grad. Spec.	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
145. Other diseases of the skin and annexa—																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
a. Trichophytosis	1	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---</

CASES BY CLASSES, 1913-14—WOMEN—Continued

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS					Total
	1917	1916	1915	1914	Grad. Spec.	1917	1916	1915	1914	Grad. Spec.	
Psoriasis	1	...	...	...	...	...	...	...	...	...	1
Seborrhoea	2	3	1	...	1	...	...	...	...	...	7
Urticaria	23	7	9	4	6	2	...	...	...	...	51
Wart—											
Face .....	...	1	...	...	...	...	...	...	...	...	1
Finger	2	...	1	1	1	1	...	...	...	...	6
Foot .....	...	...	3	2	2	...	...	...	...	...	7
Hand	3	2	2	...	5	...	...	...	...	...	12
Thumb	1	...	1	...	...	...	...	...	...	...	2
Miscellaneous	3	...	1	...	...	...	...	...	...	...	4
Nails—											
Ingrowing	2	2	1	3	...	...	...	...	...	...	8
Paronychia	3	3	...	2	2	...	...	...	...	...	10
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION:											
146. Diseases of the bones—											
Frontal sinusitis	4	1	...	3	2	...	...	1	...	...	10
Mastoiditis	1	...	...	...	...	...	...	...	...	...	1
Necrosis, nail .....	...	...	...	1	...	...	...	...	...	...	1
Periostitis .....	...	1	...	...	...	...	...	...	...	...	1
147. Diseases of the joints—											
Arthritis .....	...	1	...	1	...	...	...	...	...	...	2
Synovitis	2	...	3	...	...	...	1	...	...	...	5
149. Other diseases of the organs of locomotion—											
Bursitis	1	...	...	2	...	...	...	...	...	...	3
Ganglion, wrist	1	...	...	...	...	...	...	...	...	...	1
Hallux valgus	2	1	1	3	...	...	...	...	...	...	7
Metatarsalgia	1	...	...	...	...	...	...	...	...	...	1
Muscle cramp .....	...	...	...	1	...	...	...	...	...	...	1

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1917	1916	1915	1914	Grad. Spec.	Total	1917	1916	1915	1914 Grad. Spec. Total
Myositis	3	11	5	2	1	23	---	---	---	---
Ples planus	24	15	11	4	7	65	---	---	---	---
Rheumatism, musc.	---	---	---	---	---	---	1	---	---	1
Torticollis	4	1	---	2	---	7	---	---	---	---
X. MALFORMATIONS:										
150. Naevus	---	1	1	---	1	4	---	---	---	---
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES:										
164. Poisoning by food	7	6	1	3	3	21	1	---	---	1
165. Other acute poisonings—										
<i>a.</i> Insect stings	13	11	3	8	1	36	---	---	1	1
167. Burns—										
Arm	---	---	2	1	---	3	---	---	---	---
Eye	3	---	---	---	---	3	---	---	---	---
Face	---	---	---	1	---	1	---	---	---	---
Finger	2	1	4	1	---	8	---	---	---	---
Hand	1	4	1	2	1	9	---	---	---	---
Leg	1	---	---	1	---	2	1	---	---	1
Wrist	2	1	---	---	---	3	---	---	---	---
Miscellaneous	2	2	---	---	1	5	---	---	---	---
Sunburn	3	---	---	---	---	3	---	---	---	---
171. Traumatism by cutting or pierc- ing instruments—										
Face	---	---	---	---	1	1	---	---	---	---
Finger	2	5	3	6	3	19	---	---	---	---
Foot	1	1	---	---	---	2	---	---	---	---
Hand	2	1	---	---	---	3	---	---	---	---
Toe	---	---	1	---	---	1	---	---	---	---
Wrist	---	---	---	1	---	1	---	---	---	---

CASES BY CLASSES, 1913-14--WOMEN--Continued

	DISPENSARY PATIENTS					HOUSE PATIENTS				
	1917	1916	1915	1914	Grad. Spec. Total	1917	1916	1915	1914	Grad. Spec. Total
Diseases										
175. Traumatism by crushing—										
Fall	3	---	---	---	---	3	1	---	---	1
176. Injuries by animals—										
Cat bite	1	1	---	1	3	---	---	---	---	---
Rat bite	---	---	---	1	1	---	---	---	---	---
185. a. Dislocations—										
Back	---	---	---	1	1	---	---	---	---	---
Elbow	---	1	---	---	1	---	---	1	---	1
Finger	---	1	---	---	1	---	---	---	---	---
Foot	---	1	---	---	1	---	---	---	---	---
Jaw	---	1	---	---	1	---	---	---	---	---
Shoulder	1	---	1	---	2	---	---	---	---	---
Toe	1	---	---	---	1	---	---	---	---	---
Wrist	1	---	---	---	1	---	---	---	---	---
Miscellaneous	1	---	---	---	1	---	---	---	---	---
b. Sprains—										
Ankle	14	13	7	4	2	40	1	3	1	5
Elbow	---	1	---	1	---	2	---	---	---	---
Back	1	1	1	---	---	3	---	---	---	---
Finger	2	---	1	---	---	3	---	---	---	---
Foot	1	5	---	1	2	9	---	---	---	---
Knee	1	2	2	---	---	5	---	---	---	---
Thumb	2	4	1	---	---	7	---	---	---	---
Toe	1	1	---	---	---	2	---	---	---	---
Wrist	6	1	3	2	---	12	---	---	---	---
Miscellaneous	1	---	1	---	---	2	---	---	---	---
186. Other external violence—										
I. Organs and special structures—										
Strain of muscle of—										
Ankle	1	---	---	---	---	1	---	---	---	---
Arm	1	---	---	---	---	1	---	---	---	---

CASES BY CLASSES, 1913-14—WOMEN—Continued

STATISTICS OF THE INFIRMARY

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Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS					
	1917	1916	1915	1914	Grad.	Spec.	Total	1917	1916	1915	1914	Grad. Spec. Total
Back .....	...	1	...	1	...	...	2	...	...	...	...	...
Foot	1	2	...	...	...	...	3	...	...	...	...	...
Knee	2	1	...	...	...	...	3	...	...	...	...	...
Miscellaneous	3	2	...	...	...	...	5	...	...	...	...	...
Concussion—brain .....	...	...	...	...	...	...	...	...	...	...	...	1 1
Concussion—spine .....	...	...	...	...	...	...	...	...	...	1	1	2
II. Regions—												
Contusion and abrasion of—												
Arm .....	...	...	1	...	...	...	1	...	...	...	...	...
Elbow	2	4	...	1	...	...	7	...	...	...	...	...
Eyebrow .....	...	...	1	...	...	...	1	...	...	...	...	...
Face	1	...	...	...	...	...	1	...	...	...	...	...
Finger	5	2	2	6	...	...	15	...	...	...	...	...
Foot	4	3	1	4	...	...	12	...	...	...	...	...
Hand .....	...	4	3	4	...	...	11	...	...	...	...	...
Head	1	...	...	...	1	...	2	...	...	...	...	...
Knee	3	1	...	1	...	...	5	...	...	...	...	...
Leg	2	1	...	...	...	...	3	...	...	...	...	...
Nose	1	1	...	...	...	...	2	...	...	...	...	...
Thumb	1	...	...	...	...	...	1	...	...	...	...	...
Toes	1	3	...	1	...	...	5	...	...	...	...	...
Miscellaneous	2	2	1	1	...	...	7	...	...	...	...	...
Foreign body	4	4	1	6	1	...	16	...	...	...	...	...
XIV. ILL-DEFINED DISEASES:												
189. Unclassified or ill-defined—												
a. Diseases not specified—												
Headache	24	30	17	9	5	1	86	...	...	1	...	2
Insomnia	1	...	2	...	...	...	3	...	...	...	...	...
b. No disease—												
Hygiene advice .....	...	2	...	...	...	...	2	...	...	...	...	...
No disease	23	11	10	1	5	...	50	2	...	...	...	2

CASES BY CLASSES, 1913-14—MEN

Diseases (International classification)	DISPENSARY PATIENTS						HOUSE PATIENTS						
	1917	1916	1915	1914	Grad. Spec.	Total	1917	1916	1915	1914	Grad. Spec.	Total	
I. GENERAL DISEASES:													
1. Typhoid fever	276	107	94	89	71	4	1	---	---	---	---	---	
Anti-typhoid inoculation	---	---	---	---	---	---	641	---	1	---	1	---	
4. Malaria	3	2	---	2	3	---	10	2	1	2	3	9	
6. Measles	1	---	---	---	1	---	2	---	---	---	1	---	
7. Scarlet fever	1	---	---	---	---	---	1	1	---	---	---	1	
9. Diphtheria	2	1	---	---	---	---	3	1	---	---	---	1	
Diphtheria Carrier	---	1	---	---	1	---	2	1	1	---	---	2	
19. Other epidemic diseases—													
Chickenpox	3	1	---	---	1	---	5	3	1	---	1	5	
Mumps	19	5	7	1	2	---	34	18	4	2	3	31	
Vaccinia—													
Vaccinia	185	6	7	3	17	1	219	2	---	---	---	2	
Vaccinoid	61	3	3	3	12	1	83	---	---	---	---	---	
Reaction of immunity	5	9	1	1	4	---	20	---	---	---	---	---	
23. Rabies—													
a. Anti-rabies inoculation	---	1	---	---	---	---	1	---	---	---	---	---	
28. Tuberculosis of lungs	3	1	1	---	---	---	5	4	---	---	2	6	
34. Tuberculosis of other organs—													
Tubercular adenitis	---	---	---	1	---	---	1	1	---	---	---	1	
Tubercular cervical adenitis	1	---	---	---	---	---	1	---	---	---	---	---	
Tubercular epididymitis	---	---	---	---	---	---	---	2	---	---	---	2	
37. Syphilis	---	1	1	1	---	---	3	---	1	1	---	2	
38. Gonococcus infection—													
Chancroids	1	---	---	---	---	---	1	---	---	---	---	---	
Gonococcus infection	3	5	1	---	2	---	11	1	---	---	1	2	
46. Other tumors—													
Cyst of—													
Eye lid	1	---	---	---	---	---	1	---	---	---	---	---	
Finger	---	---	---	1	---	---	1	---	---	---	---	---	

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS						Total	HOUSE PATIENTS						Total
	1917	1916	1915	1914	Grad.	Spec.		1917	1916	1915	1914	Grad.	Spec.	
Head	---	---	1	1	---	---	2	---	---	---	---	---	---	---
Nose, op. for	---	---	1	---	---	---	1	---	---	---	---	---	---	---
Penis	1	---	---	1	---	---	2	---	---	---	---	---	---	---
Tongue	---	1	---	---	---	---	1	---	---	---	---	---	---	---
Retention	2	2	2	5	3	---	14	---	---	---	---	---	---	---
Sebaceous	---	2	2	1	---	---	5	---	---	---	---	---	---	---
47. Acute articular rheumatism	---	1	1	---	---	---	2	2	1	1	---	---	---	4
53. Leuchaemia— a. Hodgkin's disease	1	---	---	---	---	---	1	---	---	---	---	---	---	---
54. Anaemia— Pernicious	1	---	---	---	---	---	1	---	---	---	---	---	---	---
55. Other general diseases— Obesity	1	---	---	---	---	---	1	---	---	---	---	---	---	---
II. DISEASES OF THE NERVOUS SYSTEM:														
68. Other forms of mental alienation	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dementia praecox	---	---	---	1	---	---	1	---	---	---	---	---	---	---
73. Neuralgia and neuritis— Hysteria	---	1	---	---	---	---	1	1	1	---	---	---	---	2
Neuralgia of— Facial	3	---	---	1	---	---	4	---	---	---	---	---	---	---
Miscellaneous	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Neuritis	1	1	1	---	---	---	3	---	---	---	---	---	---	---
74. Other diseases of the nervous system— Angiospastic oedema	---	1	---	---	1	---	2	---	---	---	---	---	---	---
Angioneurotic oedema	---	---	1	1	---	---	2	---	---	---	---	---	---	---
Neurasthenia	6	7	---	2	6	1	22	---	3	1	---	---	---	4
Stammering	1	---	---	---	---	---	1	---	---	---	---	---	---	---
75. Diseases of the eyes and annexa a. Conjunctivitis— Acute	28	17	20	15	10	---	90	2	1	---	---	---	---	3

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS							HOUSE PATIENTS						
	1917	1916	1915	1914	Grad.	Spec.	Total	1917	1916	1915	1914	Grad.	Spec.	Total
Chronic	1	...	2	...	1	...	4	...	...	...	...	...	...	...
Follicular .....	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Palpebral	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Phlyctenular .....	...	1	...	1	...	...	2	...	...	...	...	...	...	...
<i>c. Astigmatism—</i>														
Simple hyperopic	12	11	10	6	5	1	45	...	...	...	...	...	...	...
Compound hyperopic	8	12	4	6	4	1	35	...	...	...	...	...	...	...
Simple myopic	5	3	2	1	2	...	13	...	...	...	...	...	...	...
Compound myopic	13	5	4	1	2	...	25	...	...	...	...	...	...	...
Mixed	3	4	1	...	1	...	9	...	...	...	...	...	...	...
Argyrosis of conjunctiva	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Asthenopia .....	...	1	1	...	...	...	2	...	...	...	...	...	...	...
Blepharitis marginatis	13	7	2	2	8	...	32	...	...	...	...	...	...	...
Chalazion .....	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Esophoria .....	...	...	4	...	...	...	4	...	...	...	...	...	...	...
Exophoria	3	1	...	...	3	...	7	...	...	...	...	...	...	...
Eye strain	6	4	5	2	2	...	19	...	...	...	...	...	...	...
Foreign body	8	5	3	2	5	...	23	...	...	...	...	...	...	...
Glaucoma	1	...	...	...	...	...	1	1	...	...	...	...	...	1
Hordeolum	10	13	3	4	4	...	34	...	...	...	...	...	...	...
Hypermetropia	2	1	4	3	1	2	13	...	...	...	...	...	...	...
Keratitis	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Myopia	8	3	...	4	2	...	17	...	...	...	...	...	...	...
Needling, op.	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Refraction error	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Pterygium, op. ....	...	...	...	1	1	...	2	...	...	...	...	...	...	...
Subconjunctival hæmorrhage	1	...	...	...	1	...	2	...	...	...	...	...	...	...
<i>76. Diseases of the ears—</i>														
Cerumen, accum. of	48	9	14	8	11	4	94	...	...	...	...	...	...	...
Eustachian salpingitis	3	...	1	...	1	...	5	...	...	...	...	...	...	...
Haematoma	1	...	...	...	...	...	1	...	...	...	...	...	...	...

	DISPENSARY PATIENTS							HOUSE PATIENTS						
	1917	1916	1915	1914	Grad.	Spec.	Total	1917	1916	1915	1914	Grad.	Spec.	Total
Diseases	7	7	3	5	7	1	30	---	---	---	---	---	---	---
Otitis media, ac.	2	---	1	---	2	---	5	3	4	---	---	---	---	7
Otitis media, chr.	2	---	---	---	---	---	2	---	---	---	---	---	---	---
Tympanic injured	---	---	---	---	---	---	---	---	---	---	---	---	---	---
III. DISEASES OF THE CIRCULATORY SYSTEM:														
77. Pericarditis	---	1	---	---	---	---	1	1	---	---	---	---	---	1
78. Acute Endocarditis	---	---	---	---	---	---	---	2	---	---	---	---	---	2
79. Organic diseases of the heart—	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aortic regurgitation	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Hypertrophy of heart	---	1	---	---	---	---	1	---	---	---	---	---	---	---
Mitral stenosis	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Tachycardia	---	---	---	---	---	---	---	1	---	---	---	---	---	1
81. Diseases of the arteries—	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Varicose veins	---	1	---	---	1	---	2	---	---	---	---	---	---	---
83. Diseases of the veins—	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Haemorrhoids	2	5	2	5	1	---	15	---	---	---	---	---	---	---
Varicocele	1	3	1	---	1	---	6	---	---	---	---	---	---	---
Varicocele, op. for	---	---	---	---	---	---	---	1	1	3	---	---	---	5
84. Diseases of the lymphatic system	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lymphadenitis	1	---	---	---	1	---	2	2	1	1	---	2	---	6
Lymphangitis	1	1	---	2	---	---	4	2	---	---	---	---	---	2
85. Haemorrhage—	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Epistaxis	6	2	---	---	---	1	9	9	3	1	2	1	---	16
Haemorrhage	---	2	1	---	---	---	3	---	---	---	---	---	---	---
Heart block	---	---	---	---	---	---	---	1	---	---	---	---	---	1
IV. DISEASES OF THE RESPIRATORY SYSTEM:														
86. Diseases of the nasal fossae—	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Adenoids	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Antrum, nose	---	---	1	---	---	---	1	---	---	---	---	---	---	---

CASES BY CLASSES, 1913-14—MEN—Continued

	DISPENSARY PATIENTS							HOUSE PATIENTS						
	1917	1916	1915	1914	Grad.	Spec.	Total	1917	1916	1915	1914	Grad.	Spec.	Total
Diseases	2	1	1	1	2	...	7	...	...	...	...	...	...	...
Myringitis	4	1	...	...	1	...	6	...	...	...	...	...	...	...
Deflected septum	...	...	1	...	...	...	1	1	...	...	...	...	...	1
Deflected septum, op.	5	...	...	4	...	...	9	...	...	...	...	...	...	...
Deviated septum	3	...	...	1	...	...	4	1	1	1	...	...	...	4
Deviated septum, op.	2	...	...	1	1	...	4	...	...	...	...	...	...	...
Hypertrophy of turbinates	3	2	...	...	...	...	5	...	...	...	...	...	...	...
Polypus	2	...	...	...	...	...	2	...	...	...	...	...	...	...
Polypus, op.	3	2	...	2	1	...	8	...	...	...	...	...	...	...
Inferior turbinectomy	417	290	241	161	119	10	1238	3	1	2	1	...	...	7
Rhinitis, ac.	1	1	...	...	1	1	4	...	...	...	...	...	...	...
Rhinitis, atrophic	27	3	8	4	6	...	48	...	...	...	...	...	...	...
Rhinitis, chr.	2	...	...	1	...	...	3	...	...	...	...	...	...	...
Rhinitis, turgescence	...	...	1	...	...	...	2	...	...	...	...	...	...	...
Spur	...	...	1	...	1	...	2	...	...	...	...	...	...	...
Spur, op.	2	1	1	...	...	...	4	...	...	...	...	...	...	...
Submucons resection	4	...	1	1	1	...	7	...	...	...	...	...	...	...
Ulcer, nasal	...	1	...	...	2	...	3	...	...	...	...	...	...	...
87. Diseases of the larynx—														
Laryngitis	34	25	19	9	12	1	100	...	...	...	...	...	...	...
88. Diseases of the thyroid body—														
Adenitis—														
Axillary	...	...	...	...	...	...	...	2	...	...	...	...	...	2
Cervical	8	...	2	2	...	...	12	1	...	...	...	...	...	1
Inguinal	7	4	2	...	1	...	14	2	1	...	...	...	...	3
Hyperthyroidism	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Miscellaneous	...	1	...	1	...	...	2	...	...	...	...	...	...	...
89. Bronchitis, acute—														
Bronchitis	9	3	...	5	2	...	19	4	3	2	5	1	...	15
Trachetis	57	58	33	30	23	...	201	7	2	1	1	2	...	13
92. Pneumonia—														
Pneumonia, lobar	...	...	...	1	...	...	1	...	...	...	...	1	...	1

DISEASES	DISPENSARY PATIENTS					HOUSE PATIENTS						
	1917	1916	1915	1914	Grad. Spec.	Total	1917	1916	1915	1914	Grad. Spec.	Total
93. Pleurisy .....	...	1	...	1	2	4	...	1	1	1	1	4
96. Asthma	2	...	...	...	1	3	...	...	...	...	...	...
V. DISEASES OF THE DIGESTIVE SYSTEM:												
99. Diseases of the mouth and annæa—												
<i>a.</i> Abscess, alveolar	2	9	8	3	...	22	1	1	2	2	...	6
Caries, tooth	2	4	1	2	...	9	...	...	...	...	...	...
Gingivitis	3	...	1	...	...	4	...	...	...	...	...	...
Pyorrhœa alveolaris .....	...	...	...	...	1	1	...	...	...	...	...	...
<i>b.</i> Stomatitis	7	7	2	5	3	24	...	...	...	...	...	...
Ulcers of mouth	3	2	2	2	1	10	...	...	...	...	...	...
100. Diseases of the pharynx—												
Abscess, tonsillar .....	...	...	2	...	1	3	...	...	...	...	...	...
Amygdalitis, ac.	79	60	45	32	27	243	16	6	9	4	3	38
Amygdalitis, chr. ....	...	...	...	1	...	1	...	...	...	...	...	...
Hypertrophy of tonsil	1	...	...	...	...	1	...	...	...	...	...	...
Hypertrophy of tonsil, op. ....	...	...	...	...	...	...	7	2	4	2	1	16
Pharyngitis, ac.	243	160	105	79	78	667	25	16	7	3	5	56
Pharyngitis, chr.	1	...	...	...	...	1	...	...	...	...	...	...
Vincent's angina	3	2	1	3	...	9	...	...	...	...	...	...
102. Ulcers of the stomach .....	...	...	...	...	...	...	3	...	...	2	...	5
103. Other diseases of the stomach—												
Fermentation, gastric .....	...	...	...	...	1	1	...	...	...	...	...	...
Gastritis, ac.	6	3	3	1	2	15	...	...	...	...	...	...
Gastritis, chr. ....	...	...	1	...	...	1	2	1	1	...	...	2
Hyperacidity	2	...	...	...	2	5	...	...	...	...	...	...
Hyperchlorhydria	3	4	2	1	1	11	1	...	1	1	1	4
105. Diarrhœa and enteritis—												
Colitis	3	4	2	5	2	16	...	...	...	...	1	1
Enteritis	42	28	12	15	12	110	11	9	2	2	5	29

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS							HOUSE PATIENTS						
	1917	1916	1915	1914	Grad.	Spec.	Total	1917	1916	1915	1914	Grad.	Spec.	Total
107. Intestinal parasites—														
Trichiniasis							1		1			1		2
108. Appendicitis, ac.	5	4	2		1		12	3	1	1		1		6
Appendicitis, chr.	3	3	1		1		8	1	3					4
Appendicitis, op. for								2	6	1		2		11
109. Hernias—														
Inguinal hernia	3	3	1	2			9							
Hernia, op. for									1		2			3
110. Diseases of the intestines—														
a. Fissure of anus	1		2	1			4							
Fistula, ano		1					1							
b. Auto-intoxication	1		1		1		3							
Constipation	62	41	28	22	9	1	163	3	8	4		1		16
111. Acute yellow atrophy of the liver—														
Jaundice	1			1			2		1		1			2
116. Other diseases of the liver—														
Biliousness	9	1	5	1	1		17							
Cholecystitis	1			1			2	1						1
VI. NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA:														
122. Other diseases of the kidneys and annexa—														
Congestion of the bladder			1				1							
Pyelitis					1		1							
Urethral colic			1				1							

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS					HOUSE PATIENTS					Total
	1917	1916	1915	1914	Grad. Spec.	1917	1916	1915	1914	Grad. Spec.	
123. Calculi of the urinary passages											
Renal calculus								2			2
124. Diseases of the bladder—											
Non-venereal neurosis	1										1
125. Diseases of the urethra—											
Foreign body, urethra	1									1	1
Stricture of urethra	6	2	2	3	2						15
Urethritis											
126. Diseases of the prostate—											
Prostatitis	1	1	1	1	1						5
127. Non-venereal diseases of the male genital organs—											
Atrophy of testicle	1										1
Balanoposthitis	3	3	1		1						8
Circumcision									1		1
Double hydrocele	1										1
Epididymitis	2				1		2				3
Haematocoele, spermatic cord ..								1			1
Seminal emissions			1								1
Spermatorrhoea	1			1							2
133. Non-puerperal diseases of the breast—											
Mastitis		1		1							2
VIII. DISEASES OF THE SKIN:											
143. Furuncle—											
Arm	8	1	2	5			1				16
Back	7	2									9
Buttock	2	3	1	1							7
Ear	3	5	1	5	1				1		17
Face	14	10	4	14	5		4				47
Hand	2	2	2	1							7

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS						Total	HOUSE PATIENTS						Total
	1917	1916	1915	1914	Grad.	Spec.		1917	1916	1915	1914	Grad.	Spec.	
Head	3	1	2	...	2	...	8	...	...	...	...	...	...	...
Leg	7	...	2	3	1	...	13	...	...	...	...	...	...	...
Neck	29	44	22	21	4	...	120	...	2	...	3	...	...	5
Miscellaneous	6	1	1	6	...	...	14	...	...	...	...	...	...	...
Carbuncle .....	...	1	...	...	1	...	2	...	...	...	1	...	...	1
144. Acute abscess—														
Abscess of—														
Arm	1	2	1	1	...	...	5	...	...	...	...	...	...	...
Ear .....	...	...	...	...	1	1	2	...	...	...	...	...	...	...
Face	2	...	1	...	...	...	3	...	...	...	...	...	...	...
Foot	3	2	...	2	...	...	7	...	...	...	...	...	...	...
Hand	7	7	1	...	2	...	17	...	...	...	...	...	...	...
Neck (gland) .....	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Miscellaneous	1	...	2	2	...	...	5	...	...	...	...	...	...	...
Cellulitis of—														
Arm	2	2	2	...	1	...	7	1	1	...	...	1	...	3
Ear .....	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Elbow .....	...	...	...	...	...	...	...	3	...	...	...	...	...	3
Face	3	6	1	1	3	...	14	...	...	...	...	...	...	...
Foot	11	7	5	2	1	...	26	4	...	2	...	1	...	7
Gum	4	...	3	...	3	1	11	...	...	...	...	...	...	...
Hand	6	5	3	...	4	...	18	1	3	...	1	2	...	7
Head .....	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Knee .....	...	...	...	...	...	...	...	2	...	...	...	...	...	2
Leg	6	...	...	1	...	...	7	...	...	...	1	...	...	1
Thigh .....	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Toe .....	...	...	1	...	...	...	1	...	...	...	...	...	...	...
Miscellaneous	4	2	1	...	2	...	9	...	...	...	...	...	...	...
145. Other diseases of the skin and annexa—														
a. Trichophytosis	41	16	5	5	4	...	71	...	...	...	...	...	...	...

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS						Total	HOUSE PATIENTS						Total
	1917	1916	1915	1914	Grad.	Spec.		1917	1916	1915	1914	Grad.	Spec.	
<i>b.</i> Scabies	14	4	1	1	---	---	20	---	---	---	---	---	---	---
<i>c.</i> Other diseases of the skin—														
Acne	19	14	9	5	2	---	49	---	---	---	---	---	---	---
Alopecia areta	3	---	1	1	1	---	6	---	---	---	---	---	---	---
Bromidrosis	1	---	---	1	---	---	2	---	---	---	---	---	---	---
Callositas	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Chilblains	---	---	1	---	---	---	1	---	---	---	---	---	---	---
Cicatrix	---	1	---	---	---	---	1	---	---	---	---	---	---	---
Clavus	9	5	3	3	2	1	23	---	---	---	---	---	---	---
Comedo	---	1	---	---	---	---	1	---	---	---	---	---	---	---
Dermatitis—														
Exfoliativa	---	---	---	1	---	---	1	---	---	---	---	---	---	---
Venenata	53	36	39	24	23	3	178	1	---	6	---	3	1	11
Eczema—														
Anus	---	---	---	---	1	---	1	---	---	---	---	---	---	---
Axilla	1	1	---	---	---	---	2	---	---	---	---	---	---	---
Back	---	---	---	2	---	---	2	---	---	---	---	---	---	---
Buttock	---	1	---	---	---	---	1	---	---	---	---	---	---	---
Chest	---	---	1	---	---	---	1	---	---	---	---	---	---	---
Ear	---	---	1	---	1	---	2	---	---	---	---	---	---	---
Face	---	1	1	---	---	---	2	---	---	---	---	---	---	---
Feet	8	8	12	4	1	---	33	---	---	---	---	---	---	---
Groin	---	1	---	---	---	---	1	---	---	---	---	---	---	---
Hand	---	---	1	2	1	---	4	---	---	---	---	---	---	---
Leg	1	---	1	---	3	---	5	---	---	---	---	---	---	---
Scrotum	1	---	1	---	---	---	2	---	---	---	---	---	---	---
Seborrhoeum	1	2	2	6	2	---	13	---	---	---	---	---	---	---
Miscellaneous	5	2	---	2	---	---	9	---	---	---	---	---	---	---
Erythema multiforme	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Fibroma of skin	1	---	1	---	---	---	2	---	---	---	---	---	---	---
Fissure of skin	4	1	1	1	1	---	8	---	---	---	---	---	---	---

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS					
	1917	1916	1915	1914	Grad.	Spec.	Total	1917	1916	1915	1914	Grad. Spec. Total
Folliculitis .....	...	1	...	2	2	...	5	...	...	...	...	...
Herpes	5	5	8	5	1	...	24	...	...	...	...	...
Hyperidrosis .....	...	3	...	3	...	...	6	...	...	...	...	...
Impetigo	9	7	3	5	3	...	27	...	...	...	...	...
Impetigo contagiosa	5	6	6	2	1	...	19	...	...	...	...	...
Intertrigo	2	...	2	...	...	...	4	...	...	...	...	...
Leucoderma .....	...	1	...	...	...	...	1	...	...	...	...	...
Miliaria .....	...	1	...	...	...	...	1	...	...	...	...	...
Pompholyx .....	...	...	...	2	...	...	2	...	...	...	...	...
Parasitic diseases—												
Phtheiritiasis	2	7	2	2	2	...	15	1	...	...	...	1
Pityriasis rosea	3	...	...	...	...	...	3	...	...	...	...	...
Pruritis ani	2	1	...	1	...	...	4	...	...	...	...	...
Psoriasis	2	2	...	...	...	...	4	...	...	...	...	...
Seborrhoea .....	...	2	...	1	2	...	5	...	...	...	...	...
Ulcers—												
Foot (skin graft. op.) .....	...	...	...	...	...	...	...	1	...	...	...	1
Leg .....	...	...	...	...	...	...	...	1	1	...	...	2
Urticaria	24	6	5	4	5	...	44	...	...	...	...	...
Wart—												
Foot	19	35	12	9	3	...	78	...	...	...	...	...
Hand	15	7	6	7	6	...	41	...	...	...	...	...
Head .....	...	4	1	...	...	...	5	...	...	...	...	...
Venereal	1	...	1	...	...	...	2	...	...	...	...	...
Miscellaneous .....	...	4	2	1	...	...	7	...	...	...	...	...
Zoster	5	3	3	...	...	1	12	...	...	...	...	...
Nails—												
Ingrowing nail	9	4	3	3	2	...	21	...	...	...	...	...
Paronychia	3	1	2	2	2	...	10	...	...	...	...	...
Ingrowing hair	1	3	1	...	...	...	5	...	...	...	...	...

Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS					
	1917	1916	1915	1914	Grad. Spec.	Total	1917	1916	1915	1914	Grad. Spec.	Total
176. Injuries by animals—												
Dog bite	1	2	3	...	...	6	...	...	...	...	...	...
Horse bite .....	...	...	1	...	...	1	...	...	...	...	...	...
177. Starvation—												
Over-exertion .....	...	1	...	...	...	1	...	...	...	...	...	...
185. a. Dislocations—												
Cartilage	1	3	...	1	1	1	7	...	...	...	...	...
Clavicle	2	4	1	...	...	7	2	...	...	...	...	2
Finger .....	...	1	...	...	...	1	...	...	...	...	...	...
Jaw	1	...	...	...	...	1	...	...	...	...	...	...
Metacarpus .....	...	...	1	...	...	1	...	...	...	...	...	...
Metatarsal .....	...	...	...	...	...	...	...	...	...	1	...	1
Rib	1	1	...	1	1	4	...	...	...	...	...	...
Thumb	1	...	1	...	1	3	...	...	...	...	...	...
b. Sprains—												
Ankle	27	16	4	2	2	51	2	2	...	...	...	4
Back	1	3	...	2	...	6	...	...	...	...	...	...
Elbow .....	...	1	...	1	2	4	...	...	...	...	...	...
Finger	3	3	1	...	3	10	...	...	...	...	...	...
Foot	12	6	2	2	...	22	...	...	...	...	...	...
Knee	6	1	2	1	2	12	...	...	...	...	...	...
Shoulder	4	2	1	...	...	7	...	...	...	...	...	...
Thumb	6	1	...	1	1	10	...	...	...	...	...	...
Toe	1	3	...	...	...	4	...	...	...	...	...	...
Wrist	8	5	2	1	1	17	...	...	...	...	...	...
Miscellaneous	4	...	1	...	1	6	...	...	...	...	...	...
c. Fractures—												
Arm	4	1	...	1	...	6	...	...	...	...	...	...
Clavicle	1	...	...	...	...	1	...	...	...	...	...	...
Fibula .....	...	...	...	...	1	1	...	...	...	...	...	...
Metacarpal bone .....	...	...	2	...	...	2	...	...	...	...	...	...

CASES BY CLASSES, 1913-14—MEN—Continued

Diseases	DISPENSARY PATIENTS						HOUSE PATIENTS					
	1917	1916	1915	1914	Grad.	Spec.	Total	1917	1916	1915	1914	Grad. Spec. Total
Eye	---	---	1	2	---	---	3	---	---	---	---	---
Face	4	2	1	1	---	---	8	1	---	---	---	1
Forearm	1	1	---	---	---	---	2	---	---	---	---	---
Finger	17	14	7	2	5	---	45	---	---	---	---	---
Foot	27	15	5	6	3	---	56	1	---	---	1	2
Hand	20	10	5	1	3	1	40	1	1	---	---	2
Head	4	1	1	2	1	---	9	1	---	---	---	1
Knee	34	15	11	5	7	1	73	1	---	---	---	1
Leg	10	2	3	5	2	---	22	---	---	---	---	---
Neck	1	1	1	---	---	---	3	---	---	---	---	---
Nose	6	---	2	---	---	---	8	---	---	---	---	---
Shoulder	3	1	2	1	1	---	8	---	---	---	---	---
Spine	---	1	---	---	---	---	1	---	---	---	---	---
Thigh	2	3	1	1	1	---	8	---	---	---	---	---
Toe	14	9	2	3	3	---	31	---	---	---	---	---
Miscellaneous	7	2	3	---	2	---	14	---	---	---	---	---
Foreign body	2	4	1	4	3	---	14	---	---	---	---	---
<hr/>												
Headache	16	12	5	3	1	1	38	---	1	---	---	1
Insomnia	1	1	---	---	---	---	2	---	---	---	---	---
<hr/>												
b. No disease—												
Apprehension	6	1	1	3	2	---	13	---	---	---	---	---
No disease	6	6	1	4	---	---	17	---	---	---	---	---
Normal	4	2	2	---	1	---	9	---	---	---	---	---
Operation wound	---	---	---	2	---	---	2	1	---	---	---	1
Shock	---	---	---	---	---	---	---	1	---	---	---	1
Unknown	---	---	---	---	---	---	---	1	---	---	---	1

XIV. ILL-DEFINED DISEASES:

189. Unclassified or ill-defined—

a. Diseases not specified—

b. No disease—

INFIRMARY SUMMARIES

(August 11, 1913-May 13, 1914)

DISPENSARY

	Men	Women	Total
Individuals treated	2,511	1,618	4,129
Number of treatments	18,955	10,191	29,146
Number of cases	7,044	4,018	11,062
Number of days open			276
Average number of patients treated daily			103.29
Average number of treatments per patient			7.05
Percentage of students treated			76.7
Percentage of students graduating in 1914 treated at the Infirmary—			
Men		91.36	
Women		89.87	
Average			90.61

HOUSE PATIENTS

Discharged—	Men	Women	Total
Well	303	84	387
Relieved	98	45	143
Not relieved	30	8	38
Deceased	1	---	1
Total number of Infirmary days			3,038
Number of days open			276
Total number of cases			641
Total number of individuals			510
Students who were in the Infirmary more than once during the year			59
Average stay in days			5.3
Average number of patients per day			10.76
Largest number of patients in one day			23
Surgical cases			213
Operations			105
Anaesthesia (general)			58

LABORATORY EXAMINATIONS, 1913-14

Blood	255
Feces	20
Nose and throat	139
Pus	8
Sputum	49
Stomach contents	15
Urine	654
Miscellaneous	3

COWPOX VACCINATION

August-December, 1913

Reactions grouped according to characteristics of scar

	VACCINIA			VACCINOID			REACTION OF IMMUNITY		
	Intrants			Intrants			Intrants		
	M	W	%	M	W	%	M	W	%
No scar—									
Never vac.	157	116	93	10	7	6	3*	...	1
Vac. No scar	27	20	54	6	5	16	4	6	30
Age of scar—									
Under 10 yrs.	5	17	27	22	18	50	13	6	23
10-20 yrs.	4	8	12	27	26	52	10	26	36
Over 20 yrs. ....	...	1	5	4	5	52	4	4	43
Size of scar—									
Under 15 mm.	4	14	26	18	15	49	6	11	25
15-20 mm.	2	3	8	13	20	50	14	13	42
Over 20 mm. ....	...	1	2	11	9	51	7	11	47
Character of scar—									
Pitted .....	...	1	5	6	4	45	3	7	50
Keloidal	1	...	3	10	7	53	8	7	44
Smooth	8	23	22	36	37	51	17	22	27
Total observations completed							587		
Left University							2		
Total vaccinations							589		

* One of these three had smallpox one year ago; one had chickenpox three years ago.

COWPOX VACCINATION

January-May, 1914

Reactions grouped according to characteristics of scar

	VACCINIA			VACCINOID			REACTION OF IMMUNITY					
	Intrants			Intrants			Intrants			Old students		
	M	W	%	M	W	%	M	W	%	M	W	%
No scar—												
Never vac.	9	6	90.4	...	...	...	2*	...	...	...	...	9.6
Vac. No scar	7	9	64	...	2	...	1	2†	1	...	...	16
Age of scar—												
Under 10 yrs. ....	...	...	...	2	4	...	...	...	...	...	...	...
10-20 yrs.	1	...	5	1	8	2	1	2	...	2	...	5
Over 20 yrs.	1	1	15.4	1	4	...	1	3	1	...	1	46.1
Size of scar—												
Under 15 mm.	1	...	6.7	3	4	1	1	2	1	...	...	26.6
15-20 mm.	1	...	7.7	1	6	1	...	2	...	...	1	23.1
Over 20 mm. ....	...	1	11.2	...	3	...	1	1	...	2	...	44.4
Character of scar—												
Pitted	1	...	6.7	1	5	...	2	1	1	1	1	40
Keloidal .....	...	...	...	...	1	1	...	1	...	1	...	50
Smooth	1	1	50	3	1	1	...	3	...	...	...	16.7
Total observations completed	86											
Left University	1											
Total vaccinations	87											

* Both had smallpox.

† One had smallpox.

ANTI-TYPHOID INOCULATIONS

August–December, 1913

MEN

	1st Inoculation				2nd Inoculation				3rd Inoculation			
	V.15	%	V.15s	%	V.15	%	V.15s	%	V.15	%	V.15s	%
Persons reporting	409	100	106	100	402	100	106	100	372	100	43	100
Areola present	220	54	40	38	227	56	36	34	112	30	16	38
Echymosis	102	25	17	16	98	24	15	14	39	11	4	9.3
Fever	82	20	12	11	105	26	18	17	52	14	3	7
Pain—												
Arm	54	13	14	13	62	15	20	19	31	8.3	4	9.3
Head	39	10	5	4.7	24	6	1	1	8	2.1	1	2.3
Back	10	2.4	....	....	12	3	....	....	1	0.3	1	2.3

WOMEN

	1st Inoculation				2nd Inoculation				3rd Inoculation			
	V.15	%	V.15s	%	V.15	%	V.15s	%	V.15	%	V.15s	%
Persons reporting	130	100	40	100	127	100	39	100	81	100	16	100
Areola present	87	67	16	40	98	77	15	38.4	51	63	11	69
Echymosis	7	5.4	6	15	10	7.9	7	18	6	7.5	3	18.7
Fever	26	20	4	10	9	7	3	7.6	5	4.1	....	....
Pain—												
Arm	13	10	11	27.5	8	6.3	5	12	2	2.5	1	6.3
Head	29	22	7	17.5	10	7.9	4	10.2	6	7.5	....	....
Back	11	8.5	6	15	3	2.4	1	2.5	2	2.5	1	6.3

January–May, 1914

MEN

	1st Inoculation		2nd Inoculation		3rd Inoculation	
	V.As	%	V.As	%	V.As	%
Persons reporting	278	100	276	100	271	100
Areola present	12	4.31	4	1.44	.....	.....
Malaise	24	8.63	28	10.14	1	0.36
Echymosis	9	3.23	5	1.81	1	0.36
Fever	30	10.4	35	9.05	6	2.21
Pain—						
Arm	1	0.36	2	0.72	4	1.47
Head	30	10.4	34	12.31	15	5.53
Back	2	0.73	2	0.72	.....	.....

WOMEN

	1st Inoculation		2nd Inoculation		3rd Inoculation	
	V.As	%	V.As	%	V.As	%
Persons reporting	100	100	107	100	106	100
Areola present	20	18.51	12	11.21	2	1.88
Malaise	1	0.92	6	5.6	1	0.94
Echymosis	30	27.77	25	23.36	14	13.2
Fever	14	12.96	5	4.67	1	0.96
Pain—						
Arm	3	2.77	6	5.6	3	2.83
Head	17	15.74	15	14.01	3	2.83
Back	3	2.77	3	2.8	.....	.....

STATISTICAL ADDENDA

COMPILED BY THE RECORDER OF THE FACULTIES

TABLE 1.—Summaries of officers of instruction in the colleges at Berkeley, 1892-1914.

Year	Professors		Assoc.	Asst.	Lectrs.	Instrs.	Dept. Teaching		Totals
	Acting	Emer.	Profs.	Profs.			Assts.*	Fellows	
1892-93.....	16	----	9	10	1	19	18	4	77
1893-94.....	17	----	9	12	0	20	37	7	102
1894-95.....	21	----	9	12	0	24	41	7	114
1895-96.....	21	----	10	13	0	26	37	6	113
1896-97.....	22	----	10	18	0	21	28	8	107
1897-98.....	25	----	8	25	2	35	26	6	127
1898-99.....	30	1	14	19	1	40	36	0	141
1899-1900.....	29	2	15	20	2	40	40	5	153
1900-01.....	31	2	14	19	2	41	45	2	156
1901-02.....	29	1	13	22	5	56	43	0	169
1902-03.....	34	1	12	26	14	64	48	4	203
1903-04.....	36	2	14	42	14	51	60	3	222
1904-05.....	39	1	16	48	16	45	86	3	254
1905-06.....	37	3	18	51	14	55	82	3	263
1906-07.....	40	3	19	57	14	46	94	3	276
1907-08.....	44	3	22	59	12	47	104	4	295
1908-09.....	50	3	28	62	14	53	100	6	316
1909-10.....	55	8	23	70	14	52	118	7	347
1910-11.....	47	10	29	64	14	57	75	7	303
1911-12.....	48	9	42	57	18	81	110	9	374
1912-13.....	55	8	38	61	17	77	121	16	393
1913-14.....	72	6	33	82	16	87	114	14	424

* Including readers.

TABLE 2.—Officers of instruction in the colleges and departments away from Berkeley.

Year	L.O.*	Art	Law	Medicine		P.G.		Dentistry	Pharm.	Univ. Farm
				S.F.	L.A.	Medicine				
1896-97.....	8	6	5	84	----	54		37	14	----
1897-98.....	10	6	6	49	----	51		41	10	----
1898-99.....	11	6	5	68	----	58		43	7	----
1899-1900.....	11	8	5	70	----	82		45	10	----
1900-01.....	12	8	5	68	----	94		45	9	----
1901-02.....	11	8	5	81	----	101		50	11	----
1902-03.....	12	9	5	50	----	109		46	10	----
1903-04.....	13	10	6	62	----	28		24	9	----
1904-05.....	13	9	6	55	----	23		25	8	----
1905-06.....	9	9	6	66	----	----		22	8	----
1906-07.....	7	----	6	52	----	----		34	9	----
1907-08.....	7	11	6	54	----	----		34	8	----
1908-09.....	8	7	6	54	----	----		31	8	----
1909-10.....	7	7	6	58	59	----		26	8	----
1910-11.....	16	9	6	55	61	----		32	8	10
1911-12.....	16	10	6	55	61	----		31	7	14
1912-13.....	17	12	6	53	58	----		24	9	----
1913-13.....	12	8	8	70	58	----		25	9	12

TABLE 3.—Students in the several colleges, 1904-1914.

NOTE.—The upper figures on the left of each group refer to men; the lower to women; the figures on the right side are the totals.
The following table does not include students in the following courses of instruction: University Extension, San Francisco Institute of Art, The University Farm School, Short Courses in Agriculture, Correspondence Courses, Farmers' Institutes, Welding School of Industrial Arts.

In Berkeley:	COLLEGES.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
		141 102 243	155 196 351	148 133 281	151 173 324	186 217 403	214 211 425	258 243 501	311 267 578	344 304 648	404 303 707
Graduate Students: }	Letters	70 145 215	65 129 194	40 105 145	39 93 132	39 98 137	35 116 151	59 113 172	64 104 168	69 107 176	71 105 176
	Social Sciences	274 740 1014	290 764 1054	286 763 1049	311 790 1101	321 732 1053	341 768 1109	365 786 1151	342 786 1138	395 911 1306	402 1035 1497
Undergraduates:	Natural Sciences	81 108 189	88 103 191	106 115 221	124 96 220	177 104 281	230 170 400	349 260 609	454 408 862	566 511 1077	727 595 1322
	Commerce	119 6 125	149 5 154	150 4 154	177 0 177	186 4 190	222 2 224	258 5 263	263 5 268	282 5 287	282 14 296
	Agriculture	96 10 106	115 8 123	117 10 127	128 4 132	145 7 152	191 6 197	270 10 280	350 22 372	429 26 455	524 28 552
	Mechanics	264 2 266	267 0 267	264 0 264	260 0 260	293 0 293	301 0 301	294 0 294	316 0 316	318 0 318	366 0 366
	Mining	285 0 285	271 0 271	274 0 274	278 0 278	261 0 261	243 0 243	209 0 209	160 0 160	132 0 132	122 0 122
	Civil Engineering	207 0 207	211 0 211	219 0 219	250 0 250	246 0 246	252 0 252	236 0 236	224 0 224	224 0 224	261 0 261
	Chemistry	55 7 62	48 6 54	37 5 42	34 5 39	47 3 50	44 2 46	55 2 57	56 0 56	60 0 60	62 3 65
	At Large*				6 8 14	14 22 36	14 21 35	38 30 68	29 36 65	23 37 60	44 46 90
	Medicine			9 1 10	6 1 7		10 5 15	27 3 30	27 1 28	52 7 59	39 7 46
	Total Under-graduates	1451 1018 2469	1504 1015 2519	1502 1003 2505	1613 997 2610	1729 970 2699	1863 1090 2953	2122 1179 3301	2266 1336 3602	2527 1567 4094	2916 1787 4703
Total in the Colleges at Berkeley (deducting for duplicates)		1590	1647	1643	1760	1907	2007	2343	2539	2821	3285
Percentage of men, departments at Berkeley		1109 2699	1118 2839	1118 2761	1136 2916	1176 3083	1285 3352	1403 3746	1573 4112	1846 4667	2064 5349
		58.91	58.01	59.51	60.36	61.85	61.66	62.55	61.74	60.44	61.41

* In the above table, beginning 1910-11, students at large are summarized separately, and are also distributed among the several colleges.

TABLE 3—(Continued).

	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Lick Observatory, Mt. Hamilton:	3 0	3 1	1 1	3 0	3 0	1 1	1 1	2 0	.....	.....
In San Francisco:										
Hastings College of the Law.....	74 5	74 2	73 1	69 0	98 2	116 1	104 1	117 2	100 0	88 0
*College of Medicine.....	88 12	64 9	35 5	25 1	28 7	39 10	18 0	16 2	17 3	24 7
Post-Graduate Medical Department	12 2	14	.....	.....	.....	.....	.....	.....	.....	.....
College of Dentistry.....	85 2	71 3	64 1	69 0	53 0	57 0	64 0	77 1	90 0	3 0
California College of Pharmacy.....	83 3	76 5	43 4	42 3	62 5	67 5	78 7	79 1	95 3	113 4
Total in the Colleges } in San Francisco }	342 24	285 19	215 11	205 4	241 14	279 16	261 8	289 6	302 6	31 10
In Los Angeles:										
Total in the University (deducting for duplicates).....	1920 1131	1932 1211	1858 1128	1965 1160	2127 1184	2352 1301	2631 1417	2842 1579	3128 1852	3606 2074
Summer Session	409 504	339 459	330 77	258 264	317 344	381 438	460 591	562 1419	676 1599	783 1580
Total	2329 1635	2271 1670	2188 1506	2223 1424	2444 1528	2733 1739	3091 2008	3404 2998	3804 3451	4389 3654
Deduct for duplicate registrations in Summer Session and in Fall session following.....	305	268	204	154	109	189	245	293	220 183	289 183
Grand Total	3659	3673	3490	3493	3863	4283	4854	6109	3268	3436

* Up to and including 1905-06 figures for College of Medicine include four classes; beginning 1906-07 only third and fourth years are given, figures for first and second years being included in "Students in Berkeley," Graduate and undergraduate.

TABLE 4.—Showing proportion (per cent) of the undergraduates, including special students, in each of the colleges at Berkeley.

	1903-04	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Letters	9.54	8.70	7.70	5.70	5.05	5.07	5.11	5.21	4.66	4.30	3.74
Soc. Sciences	40.24	41.06	41.84	41.87	42.14	39.01	37.52	34.86	31.60	31.90	31.83
Nat. Sciences	7.89	7.65	7.58	8.82	8.42	10.41	13.54	18.45	23.93	26.31	28.11
Commerce	4.89	5.06	5.71	6.14	6.78	7.03	7.50	7.96	7.44	7.01	6.30
Agriculture	4.19	4.29	4.88	5.07	5.05	5.63	6.67	8.48	10.33	11.11	11.74
Mechanics	9.99	10.77	10.59	10.53	9.96	10.85	10.19	8.96	8.82	7.77	7.78
Mining	12.04	11.54	10.75	10.93	10.65	9.67	8.22	6.33	4.44	3.22	2.59
Civ. Eng.	6.82	8.38	8.37	8.74	9.58	9.11	7.11	7.14	6.49	5.47	5.55
Chemistry	4.40	2.51	2.14	1.67	1.49	1.85	1.55	1.72	1.55	1.46	1.38
Medicine .....	.....	.....	.....	.30	.26	.55	.50	.09	.08	1.44	.98
At large .....	.....	.....	.....	.....	.53	1.33	1.18	*[2.06]	*[1.80]	*[1.46]	*[1.91]

* In the above table, beginning 1910-11, students at large are summarized separately, and are also distributed among the several colleges, according to expressed collegiate preference.

TABLE 5.—Summary of students registered to November 1 (approximately), 1908, 1909, 1910, 1911, 1912, 1913, and 1914.

A. The colleges at Berkeley:							
	Nov. 1, 1908	Nov. 1, 1909	Nov. 1, 1910	Nov. 1, 1911	Nov. 1, 1912	Nov. 1, 1913	Nov. 1, 1914
(1) Graduate students in the colleges of letters and sciences (including engineering)	328	337	416	460	533	577	661
(2) Undergraduate students in the colleges of letters and sciences (including engineering)	2,538	2,745	3,033	3,308	3,753	4,325	4,629
Total	2,866	3,082	3,449	3,768	4,286	4,902	5,290
B. The colleges in San Francisco :							
(1) Law	95	112	102	116	97	79	72
(2) Medicine (3rd and 4th years only) *	8	11	16	18	19	31	45
(3) Dentistry	56	57	59	75	89	90	112
(4) Pharmacy	69	78	85	78	87	114	95
Total	228	258	262	287	292	314	324
* Students in medicine, 1st and 2nd years, included in colleges at Berkeley—							
Graduate	8	13	10	16	24	42	28
Undergraduate	10	20	21	35	58	46	55
Total	18	33	31	51	82	88	83

TABLE 5—(Continued).

C. The Los Angeles Dept. of Medicine (In 1909-10, 2nd, 3rd and 4th years; in 1910-11, 3rd and 4th years) *	.....	44	34	19	7	.....
Total students in all colleges.....	3,094	3,384	3,745	4,074	4,585	5,216
D. The summer session	('08) 661	('09) 819	('10) 1,051	('11) 1,981	('12) 2,275	('13) 2,363 ('14) 3,179
Gross total	3,755	4,203	4,796	6,055	6,860	7,579
Deduction for all duplicates....	139	240	287	331	480	543
Net total	3,616	3,963	4,509	5,724	6,380	7,036
						8,180

* See footnote on previous page for students in first and second years, College of Medicine.

NOTE.—The foregoing table does not include students in the following courses of instruction: University Extension, San Francisco Institute of Art, The University Farm School, Short Courses in Agriculture, Correspondence Courses, Farmers' Institutes, Wilmerding School of Industrial Arts.

TABLE 6A.—Graduate Students at Berkeley, classified by colleges, October 1, 1914, with comparable figures for 1913.

NOTE.—In the columns showing the number of students, the upper left-hand figures refer to men, the lower to women; the figures on the right side are totals.

	1913		1914	
Letters	44		40	
	56	100	49	89
Social Sciences	69		88	
	107	176	178	266
Natural Sciences	71		67	
	61	132	56	123
Commerce	2		8	
	0	2	0	8
Agriculture	14		23	
	4	18	3	26
Mechanics	6		4	
	0	6	0	4
Mining	5		1	
	0	5	0	1
Civil Engineering	6		7	
	0	6	0	7
Chemistry	23		29	
	4	27	2	31
Medicine (1st and 2nd years)	32		19	
	10	42	9	28
Jurisprudence	57		60	
	6	63	2	62
Architecture	---	---	14	
			2	16
Total	329		360	
	248	577	301	661

TABLE 7.—Degrees conferred, 1905–1914.

DEGREE	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
LL.D.	0 0 0	0 0 0 0	0 0 0	0 0 0	1 0 1	9 0 9	5 0 5	5 0 5	4 0 4	
J.D.		2 1 3	3 0 3	6 0 6	7 0 7	7 1 8	8 1 9	10 1 11	11 1 12	14 1 15
Ph.D.	4 0 4	6 0 6	4 0 4	4 0 4	10 0 10	4 1 5	5 1 6	13 2 15	9 2 11	11 2 13
M.A.	4 5 9	7 7 14	5 4 9	9 3 12	7 10 17	7 11 18	5 12 17	4 20 24	6 16 22	9 22 31
M.L.	2 3 5	1 9 10	8 3 11	9 13 22	9 11 20	7 16 23	5 16 21	9 15 24	6 14 20	6 26 32
M.S.	5 3 8	10 0 10	9 4 13	2 3 5	12 10 22	20 5 25	27 8 35	26 9 35	43 13 56	32 17
Number of higher degrees	15 11 26	26 17 43	26 11 37	30 19 49	46 31 77	54 34 88	50 38 88	67 47 114	80 46 126	76 68 144
A.B.	14 37 51	18 41 59	10 22 32	14 29 43	10 17 27	8 31 39	7 26 33	11 25 36	23 24 47	10 20 30
B.L.	36 108 144	44 131 175	44 90 134	33 128 161	44 111 155	49 108 157	41 113 154	42 114 156	54 122 176	92 137 229
Ph.B.	0 0 0	1 1 2								
Nat. Sci.	16 20 36	17 19 36	7 13 20	13 34 47	19 16 35	34 20 54	37 34 71	70 61 131	80 65 145	42 48 90
Commerce ..	12 1 13	24 0 24	16 0 16	18 0 18	14 0 14	22 1 23	21 1 23	21 0 21	32 0 32	22 0 22
Agriculture ..	6 2 8	13 0 13	9 1 10	13 0 13	21 1 22	21 3 24	22 0 22	40 0 40	45 3 48	52 3 55
B.S.	20 0 20	21 0 21	36 0 36	42 0 42	26 0 26	45 0 45	26 0 26	36 0 36	30 0 30	46 0 46
Mining	22 0 22	41 0 41	43 0 43	35 0 35	26 0 26	27 0 27	44 0 44	26 0 26	25 0 25	24 0 24
Civil Eng... ..	19 0 19	33 0 33	31 0 31	20 0 20	34 0 34	27 0 27	24 0 24	31 0 31	31 0 31	25 0 25
Chemistry ..	14 2 16	8 2 10	5 0 5	6 2 8	3 1 4	5 1 6	9 0 9	7 0 7	11 0 11	4 0 4
Number of bach- elor's degrees {	159 170 329	220 194 414	201 126 327	194 193 387	197 146 343	238 164 402	232 174 406	284 200 484	331 214 545	317 208 525
LL.B.	19 1 20	15 1 16	28 0 28	14 0 14	14 0 14	23 0 23	19 0 19	28 1 29	22 0 22	30 0 30
M.D.	16 2 18	17 2 19	21 4 25	15 1 16	6 1 7	7 4 11	5 1 6	10 1 11	11 1 12	10 3 13
D.D.S.	40 0 40	22 2 24	18 0 18	20 0 20	15 0 15	16 0 16	10 0 10	15 0 15	20 0 20	23 0 23
*Ph.G.	36 1 37	24 2 26	24 2 26	10 1 11	18 1 19	27 2 29	30 2 32	31 0 31	28 2 30	40 2 42
Pharm.B.	0 0 0	3 0 3	0 1 1	1 0 1	0 0 0	1 0 1	3 1 4	2 0 2	0 0 0	1 0 1
Number profes- sional degrees {	111 4 115	81 7 88	91 7 98	60 2 62	53 2 55	74 6 80	67 4 71	86 2 88	81 3 84	104 5 109

* Ph.G. discontinued and replaced by Ph.C. in and after 1905.

† Figures for 1914 cannot be completed before December 19, 1914.

TABLE 8.—Number of accredited schools each year, since the first accrediting of schools in 1883-84.

	1884- 85	1885- 86	1886- 87	1887- 88	1888- 89	1889- 90	1890- 91	1891- 92	1892- 93	1893- 94
Number public high schools accredited	4	6	6	6	7	11	17	24	30	39
Number private secondary schools accredited	0	0	0	1	2	2	6	7	10	9
Total number schools accredited	4	6	6	7	9	13	23	31	40	48
	1894- 95	1895- 96	1896- 97	1897- 98	1898- 99	1899- 00	1900- 01	1901- 02	1902- 03	1903- 04
Number public high schools accredited	43	52	61	66	76	87	93	93	100	104
Number private secondary schools accredited	14	15	15	15	15	23	23	22	18	20
Total number schools accredited	57	67	76	82	91	110	116	115	118	124
	1904- 05	1905- 06	1906- 07	1907- 08	1908- 09	1909- 10	1910- 11	1911- 12	1912- 13	1913- 14
Number public high schools accredited	99	106	114	122	140	147	155	172	181	192
Number private secondary schools accredited	21	23	23	25	30	31	31	31	32	34
Total number schools accredited	120	129	137	147	170	178	186	203	213	226

NOTE.—Schools authorized to recommend though not regularly accredited: 1909-10, 34; 1910-11, 26 1911-12, 35; 1912-13, 40; 1913-14, 45.

TABLE 9.—Enrollment of graduate students.

	1903-04	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Total number of graduate students	269	243	331	281	324	403	425	501	578	648	707
Number from University of California	137	130	240	159	177	236	214	258	307	342	371
Percentage of graduate students from University of California	50.9	53.4	68.3	56.4	54.6	58.5	50.3	51.4	53.1	52.8	52.3
Percentage of graduate students from other institutions	49.1	46.6	31.7	43.6	45.4	41.4	49.6	48.5	46.9	47.2	47.7
Total number of colleges and universities represented	71	71	79	67	81	90	98	120	122	152	146
Number of graduate students taking higher degrees (masters' and doctors' degrees not including juris doctor)	29	28	35	34	49	61	66	79	99	103	149
Percentage of graduate students taking higher degrees (masters' and doctors' degrees not including juris doctor)	10.8	11.5	9.9	12.1	15.1	15.1	15.5	15.7	17.1	15.9	21.1
Number of graduate students receiving Ph.D. degree	3	4	6	5	4	10	5	6	15	10	14
Number of graduate students receiving the bachelor's degree	18	20	14	8	3	7	8	7	7	10	7
Number of graduate students taking LL.B. in the academic departments	3	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Number of graduate students taking juris doctor in the academic departments	-----	-----	3	3	6	7	6	8	13	11	16

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The following abbreviations are used: agr. (agriculture), agrl. (agricultural), Am. (American), anthrop. (anthropology), assn. (association), bldg. (building), Cal. (California), cfd. (compared), co. (county or company), coll. (college), dept. (department), exam. (examination), ext. (extension), govt. (government), hist. (history), introd. (introduction), lab. (laboratory), libr. (library), L. O. (Lick Observatory), L. A. (Los Angeles), mfg. (manufacturing), N. S. G. W. (Native Sons of the Golden West), no. (number), prof. (professor), pub. (publish or published), publ. (publications), repd. (represented), S. F. (San Francisco), U. C. (University of California), U. S. (United States), univ. (University).

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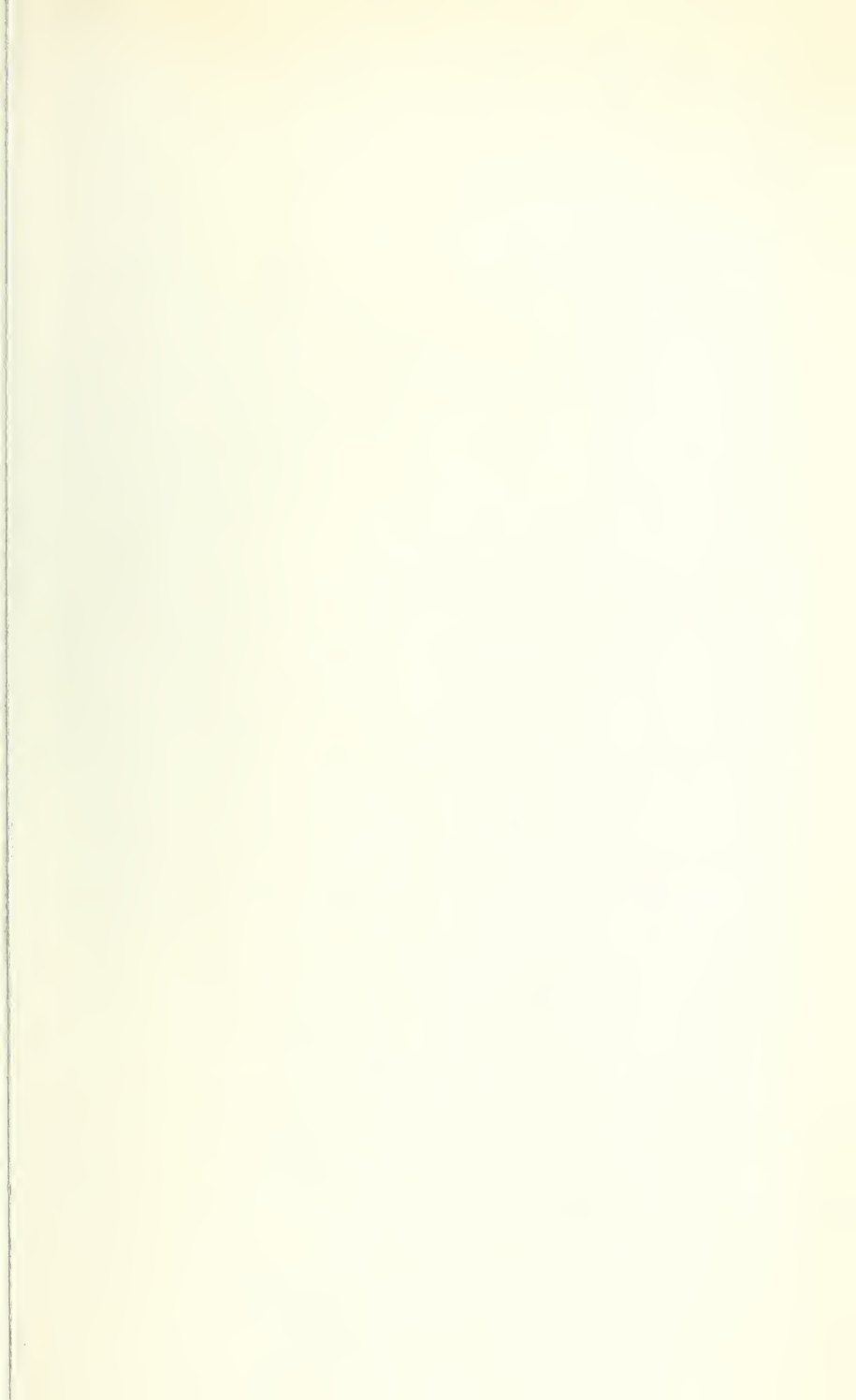
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